THE

MEDICAL EXAMINER,

AND

RECORD OF MEDICAL SCIENCE.

NEW SERIES—No. XI.—NOVEMBER, 1845.

ORIGINAL COMMUNICATIONS.

Case of Twins, in which one child was black, and the other white. By Alexander Cunningham, M. D. Communicated in a letter to Prof. Dunglison.

My dear Sir,—Since my return from Philadelphia last spring, an occurrence of extreme novelty and interest has fallen under my notice, which may be useful to the profession in a physiological point of view. A negro woman, owned by a planter in this neighborhood, aged about 45, after having given birth to thirteen children during her life, none of which were twins, was during the last spring safely delivered of two at one birth, one being *black*, and the other *white*. I saw them when they were a few weeks old, and the contrast in colour, hair, &c., was indeed striking, so much so, that four-fifths of those who examined them were of opinion that the negro was not the mother of both, that some deception was being played; but the mother persisted and still declares them to be her own. That a black woman may give birth, at one time, to a *black* child and a *mulatto*, although extremely rare, I believe; but a case like the present is a phenomenon as inexplicable as it is interesting. Can you not throw some light upon it? A particular favour would be conferred upon an old pupil, who has heard with delight many of your valuable lessons of instruction.

Lunenburg County, Virginia, Sept. 30, 1845.

We think it probable, that there is some mistake in the account of the above case, and that the child said to be white is either an Albino or a mulatto. We hope Dr. Cunningham will investigate the matter further, and give us a more circumstantial account, which we shall be happy to publish.—Ed.

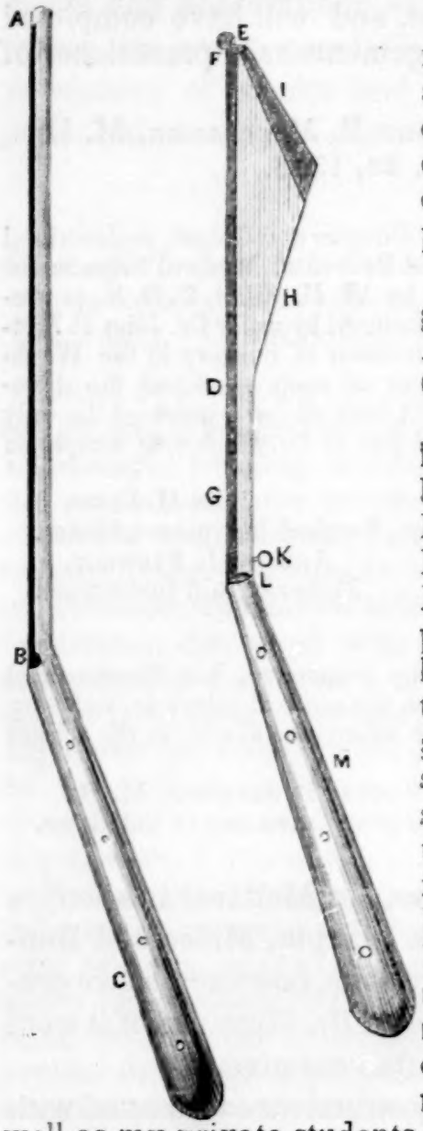
On a new form of Director and Gorget. By JOHN P. METTAUER, M. D., late Professor of Surgery and Surgical Anatomy in Washington University of Baltimore; now Senior Professor of Prince Edward Medical Institute of Virginia.

In the July No. of the Medical Examiner and Record of Medical Science, under the head of Original Communications, a paper appears entitled "Contributions to General Surgery," by W. H. Elliot, D. D. S. In this paper the writer describes and figures a cutting gorget and staff (director) which he seems to think possesses advantages over the instruments generally employed for lithotomy, in making the section of the urethra and prostate into the bladder; and it would seem, too, that he considers the principles of these improvements original with himself, as no reference is made in the paper to any similar contrivance proposed or employed by any other writer or operative surgeon.

With the principles of these instruments I have been familiar for many years,—since 1818, when the improvement first suggested itself to my mind. I first employed instruments constructed on this plan in operating for stone of the bladder, in 1836, and since then, I have used no others. I have improved upon the original contrivance, and my last improvement was effected during the winter of 1835–36, but the original design of the dove-tail groove of the director, and the globular beak of the gorget have uniformly been adhered to, as it was upon these that the great value of the improvement depended. Being early aware of the danger likely to arise from the accidental escape of the beak of the gorget—or knife, if that instrument be employed—from the groove of the director during its passage into the bladder, especially with inexperienced operators, the dove-tail groove of the director and globular beak of the gorget suggested themselves to my mind as improvements which would prevent such an accident; and abundant experience with the instruments thus modified, conclusively establishes their value and utility in guarding against it in the most effectual manner. Simply inspecting the instruments, if they are properly constructed, would satisfy even the most casual observer, that it would be impossible for the gorget to pursue any other direction than that of the groove of the director. The beak should be well formed with a globular finish, supported by a peduncle of sufficient strength to guard against its being broken by any moderate degree of violence, from a twist, or irregular movement along the groove of the director. The director should be fully six inches long in the shank, with a handle some three or four, and of a size to fill the hand, so that it can be firmly grasped and securely held; and the two branches must form a very obtuse angle, with the groove

on the side of the vertex or point of the angle. The director and gorget I employ are delicately formed, and in my opinion should always be so constructed. A probe-point should always form the termination of the director, so as to close that extremity of the groove.

My mode of operating is simply to form the perineo-urethral incision, directed by a staff carried into the bladder; and then to introduce the straight director, already briefly described, through the incision fairly into the bladder, along the groove of which the gorget glides to form the second, or the urethro-prostatic section. As soon as the straight director enters the urethra beyond the proximal angle of the first incision, the staff should be carefully removed from the urethra.



The accompanying sketches will represent the forms of the director and gorget, and will also indicate the dove-tail form of the groove of the director, and the shape and position of the beak of the gorget of half their proper size.

Fig. I represents the dove-tail grooved director (half proper size.) A, probe-point. B, dove-tail groove. C, handle.

Fig. II. D, beak of gorget of half proper size. E, beak made globular. F, neck of beak. G, shank. H, blade. I, cutting-edge. K, screw. L, connection of blade with handle. M, handle. It will be seen that the principles of the director and gorget here described, are identical with those of Dr. Elliot's, and there is no great dissimilarity in form. My instrument was exhibited and described to the medical class during the winter of 1835—6, in the Washington University of Baltimore, while I was connected with that school as Professor of Surgery, and is well remembered by many of the gentlemen now engaged in practice, who honored me with their attendance on my lectures during that period, as well as my private students before that time, and subsequently,

who received instruction from me at my present residence in Virginia.

The accompanying certificates will fully sustain my claim to originality and priority over Dr. Elliot, and they are furnished by gentlemen of character and intelligence, and if required, I could procure testimony to establish my claim to the invention as far back as 1818.

Contemplating, and at different times successively effecting modifications in these instruments, and not having brought them to a state of satisfactory perfection until comparatively recently, I have never published an account of them. And such a publication has been still farther delayed by the unfinished state of a work on "the Theory and Practice of Surgery," which I am at this time preparing for the press, and will have completed during the ensuing year, if my engagements as a practitioner of medicine and surgery will permit.

JOHN P. METTAUER, M. D.

Prince Edward C. H., Va., Sept. 26, 1845.

Sept. 14, 1845.—This is to certify that the Director and Gorget, as described and figured in the Medical Examiner and Record of Medical Science for July, 1845, for the Operation of Lithotomy, by W. H. Elliot, D. D. S., is precisely the same in principle as those manufactured by us for Dr. John P. Mettauer, as early as 1835–6, when he was Professor of Surgery in the Washington University of Baltimore. The director of each contained the dove-tail groove, to prevent the beak of the gorget from slipping out, and the only difference we see in those made by us and that of Dr. Elliot's, is simply in the handle and the curve of the director.

Signed JOHN H. FRIES,
Foreman for Samuel Jackson, Surgical Instrument Maker.
ANDREW L. STEWART,
Maker of said Instrument.

Test—Samuel Jackson.

Doctor John P. Mettauer submitted to my inspection, his Director and Gorget, constructed with the dove-tail groove, the same in principle, and very nearly the same in every respect, as the one referred to above, in the winter of 1835-6.

SAMUEL R. JENNINGS, M. D.,
Late Professor of Obstetrics, &c., in Washington University of Baltimore.

In addition to the above certificates, Dr. Mettauer has sent to us similar testimonials, signed by Drs. Maupin, Miller and Dunbar; we deem it unnecessary to insert them, however, as we presume no one will doubt the statement of Dr. Mettauer, if it were even unsupported by the certificates that are given.

While we entertain no doubt that instruments constructed with reference to the same mechanical principles as those of Dr. Elliot,

were used by Dr. Mettauer as long ago as 1835, we can see no reason for believing that the same plan was not also original with Dr. Elliot. It affords another example of two ingenious men adopting, without concert, the same means to accomplish a particular end. The communication of Dr. Elliot came to us through a friend attached to the Medical Staff of the U. S. Army; one who is well qualified to judge of such an improvement, and who undoubtedly believed the instrument to be original with Dr. Elliot, a gentleman who is represented to be more than ordinarily endowed with mechanical ingenuity. Dr. Mettauer we hope will see the propriety of hereafter publishing his improvements and observations early, to avoid being anticipated by others—an event very liable to happen in this age of rapid advancement of science and the arts, as we have repeatedly experienced ourselves.—Editor.

Case of Congenital Cataract in both eyes, one operated on successfully. By George Dock, M. D., of Harrisburg, Pennsylvania. Communicated in a letter to the editor.

Dear Sir,—Since my return from Philadelphia, I was sent for by Dr. William Henderson, to see the daughter of Mr. John Balsbaugh, residing eleven miles from this place. The little girl was about three years of age, and a fine, healthy, intelligent child, but with perfectly formed cataract in both eyes, and which on inquiry proved to have been congenital. As the constitution of the child was favourable, the eyes healthy, well formed and handsome, the pupil well dilated and free from adhesions all around, with the consent of the parents and concurrence of the family physician, I determined to operate on one eye first, waiting to see the result before proceeding further. Having prepared the patient that day, I next morning applied belladonna around the right eye, which by two o'clock had fully dilated the pupil, when I proceeded to operate in the following manner:

Having placed the patient in the lap of a gentleman, with its back bearing against his breast, with his arms around its body and over its arms, so as to keep them down, I took a seat on the right and a little behind, and with my thumb and fore finger of the left hand drew up the upper lid, whilst an assistant, Dr. Shope, depressed the lower lid with his finger. Having thus dispensed with a speculum, (which indeed I never use) I introduced a small straight needle into the sclerotica about a line and a half from the

cornea, carried it above the lens, and finding it to be a soft capsulo-lenticular cataract, divided the lens and capsule from above downwards, before backwards, &c., disengaging the capsule well from the ciliary body so as to leave nothing to form a secondary cataract, (of which I have seen several) caused by the remaining part of the capsule floating about the pupil and obstructing the rays of light. Being one of those soft cataracts which are so troublesome to keep down after couching them, it rose several times, but at length I made a bed for it in the vitreous humour and kept it there with my needle several seconds, when, with a gentle rotary motion, I disengaged the instrument and withdrew it. The pupil was clear and beautiful. I closed the eye, threw a light bandage around, and placed the child in its mother's arms in a darkened room, and remained in the house myself during the night. In the morning, finding every thing going on well, I left, with a request to be informed of the progress of the case. Three or four days after the operation, I received a letter from Dr. Henderson saying that the conjunctiva was perfectly clear and healthy, that the eye looked beautiful, and that there had not been the least discoverable enlargement of the vessels in the neighborhood of the wound caused by the needle. The patient is now so well as to render it probable that I shall soon be able to operate on the other eye.

This is the third case of congenital cataract I have operated on within the past ten months, and all with the same complete success, in none of which has there been so much inflammation as to require a purge.

Harrisburg, September, 1845.

BIBLIOGRAPHICAL NOTICES.

Elements of Materia Medica and Therapeutics. By John P. Harrison, M. D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio. 2 vols. pp. 405, 619. Cincinnati, 1845.

It is not more than twelve months since we gave a running commentary on the chief works that had previously and recently appeared on the subject of Materia Medica and Therapeutics,—a department of medical science less susceptible of rapid modification than any other; for the additions made to Materia Medica

in any brief space are few; whilst the great principles of Therapeutics ought most assuredly to be unsusceptible, at this date, of any very material alteration. There appears, indeed, to be a gradually increasing feeling amongst the wisest and the best of the profession, that whilst an exact appreciation and establishment of therapeutical principles is essential, the list of agents for carrying such principles into effect should be pruned, so that ultimately the materia medica may contain only the positively useful. No judicious physician now believes, that there is a single drug which is adapted for the removal of any special morbid condition; whilst all admit the importance of becoming acquainted with the sensible and medical properties of remedial agents; and of applying them, guided by just views of therapeutics.

The work before us is the product of two parturitions. The first volume was ushered into the world several months ago; the latter recently. The author is essentially a vitalist in his views of the *modus operandi* of medicines, which accounts for the remark in his preface, that he feels "in an especial manner" "under great obligations to Professors Chapman, Caldwell and Paine" for his "exposition of the modus operandi of medicines;" whilst he at the same time frankly expresses his acknowledgments to Paris, "Dunglison, Bell, Pereira, and other recent high authorities," for many valuable facts on the questions discussed.

Several of the Author's views in regard to the action of remedial agents are by no means such as we are prepared to embrace. His *first* conclusion, that "medicines acting in accordance with the laws of life, and in a manner coincident to the modes in which impressions producing disease influence the system, do not, as foreign agents, enter the blood; but when found there or in the secretions, they are to be regarded as assimilated, and thus brought under the vital principle"—is by no means demonstrated. Indeed, we should like to hear even a plausible reason offered in its support. What evidences have we of opium, or tobacco, or turpentine, when inhaled, being "assimilated and thus brought under the dominion of the vital principle;" or that any such "assimilation" occurs on the reception of miasmata into the system? And what proofs that saline solutions placed in contact with living vessels, passing into the

vessels under the eye of the observer, and capable of being detected in those vessels, have experienced any such change as that indicated by him?

His *second* conclusion we are prepared to receive. "Medicines are relative agents, and therefore never act as specifics;" whilst we unhesitatingly reject his *third*,—that "there is not a single indication of cure, when a true diagnosis of disease is made, which favours in the smallest degree the idea, that medicines, by entering the circulation, accomplish their useful purposes."

Now we affirm that in every case of cachexia, or of any disease, in which we wish to make a new impression on the tissues, the philosophical indication of cure is to administer such agents as may pass into the blood vessels, modify the condition of the circulating fluid, and through it induce a new action on the tissues that are formed and nourished by it. The whole class of eutrophics—as they are termed by Dr. Dunglison—probably exert their powers in this manner,—directly on the blood, indirectly on the tissues. To us, there is a frequent cloudiness, caused by the profusion of words employed by the author to convey his meaning, which induces us to doubt whether we exactly comprehend him, and whether, therefore, we may not be fighting with ideal creations. In other cases, however, his language is sufficiently clear; and in our view—which we by no means hold up as the only true one—sufficiently erroneous. This cloudiness is strikingly apparent in his "*fourth* therapeutical indication," which, he says, "is too much overlooked by the physician"—the "restoration of the secretions"—yet secretions do not become arrested without a pathological cause; and, consequently, the true indication, where arrest of secretion occurs, is to discover that cause, to remove it, and then "restoration of the secretions" will certainly follow.

Still, although we may object to the laying down of any such indication as the "restoration of the secretions," we cannot think the author far wrong, when he cautions us "always to keep in mind, that it is not the quantity of secreted product that is to be viewed as of primary importance, but that the return of the organ to its physiological state, as indicated by the normal secretion, is the criterion of a just sanative effect." vol. 2, p. 420.

We place little stress on classifications of therapeutical agents;

and therefore should not object to that of the author, which he says "is founded upon indications of cure," did he not claim for it marked advantages over others. After presenting the subjoined classification he remarks:

"The superiority of this arrangement lies in its easy comprehension, and, as a consequence of its simplicity, a ready reference to the appropriate divisions of the table, containing the separative curative measures in daily use by the physician."—vol. 1, p. 39.

Dr. Harrison's arrangement is as follows:

I. ALTERANTS.—*a.* Anti-inflammatory. *b.* Anti-cachectic or invigorating.

II. EVACUANTS.—*a.* Bloodletting. *b.* Emetics. *c.* Cathartics.

III. INCITANTS or EXCITANTS.—*a.* Stimulants. *b.* Antispasmodics. *c.* Tonics. *d.* Astringents.

IV. SECRETANTS.—*a.* Diaphoretics. *b.* Diuretics—Antilithics. *c.* Expectorants. *d.* Emmenagogues. *e.* Anthelmintics.

V. NARCOTICS, ANODYNES.

VI. DERIVATIVES, REVULSIVES.—*a.* Baths at various temperatures. *b.* Frictions. *c.* Rubefacients. *d.* Epispastics. *e.* Pustulents. *f.* Suppuratives. *g.* Cauterizing counter-irritants.

To almost the whole of this table valid objections may be made. The division of alterants into anti-inflammatory and anti-cachectic or invigorating is far from being precise, and farther still from being clearly demonstrated. The class of Evacuants ought not to exclude Diaphoretics and Diuretics; nor that of Secretants, Cathartics. Antilithics cannot clearly belong to Secretants; nor can we imagine a shadow of a reason for placing Anthelmintics under the same division; nor why "baths at *various temperatures*" should necessarily be derivatives or revulsives! Again, what is the difference between Incitants or Excitants and Stimulants; and by what process of reasoning does the author arrive at the inference, that antispasmodics belong necessarily to the class of Incitants? We cannot, therefore, accord with the author in the confident belief, "that some advancement is made by such an arrangement in achieving a comprehensive and accurate scheme of classification." p. 44.

Our space will not permit us to go into a lengthened examination of the volumes before us. A competent notion may be formed of their contents by the headings of the chapters. In *vol. first* we have, 1. Modus operandi of medicines. 2. Effects of Remedies. 3. Classification of medicines. 4. On the circumstances which modify therapeutical indications. 5. Theory and art of prescribing. 6. Synopsis of incompatible substances. 7. Poisons and their antidotes. 8. Patent medicines and nostrums. 9. Indications of cure. 10. Alterants. 11. Do. 12. Evacuants. The *second volume* is arranged as follows: 1. Bloodletting. 2. Emetics. 3. Cathartics. 4. Enemata. 5. Incitants or Excitants, Stimulants, Antispasmodics, Tonics, Astringents. 6. Restoration of the Secretions, Diaphoretics, Diuretics and Antilithics, Expectorants, Emmenagogues, Anthelmintics. 7. Anodyne or Narcotic Indication; and 8. Revulsive Indication:—a catalogue not characterized for *lucidus ordo*, notwithstanding the fancied "simplicity" of the author's classification.

Dr. Harrison does not confine his accordance with Dr. Chapman to the view of the latter in regard to the *modus operandi* of remedies. He expresses his utter disbelief as to the curability of tuberculosis of the lungs; and in order that there may be no mistake as to his sentiments on this matter, he over and over again repeats his incredulity.

Speaking of iodine inhalations he remarks:—

"That such inhalations may be conducive to the comfort of the patient, we readily concede; but that iodine or any other remedy can exert any restorative power over the tubercular degeneration of the lungs, neither the past nor contemporaneous experience of the profession will justify us in believing, although even as eminent a man as Sir Charles Scudamore should assert that he has cured patients affected with that disease by the administration of iodine inhalations." vol. 1, p. 344.

Under another head his sentiments are not quite so strongly expressed:

"Pulmonary consumption may be prevented, but of its curability strong doubts are entertained by almost every old and observant practitioner, in Europe and America." vol. 2, p. 355.

And again, when treating of Prunus Virginiana:

"As to the curative power confided in by some, which it is said to exercise over phthisis pulmonalis, we agree with Prof. Dungli-

son, that neither this remedy, and, we may add, no other in our experience, has ever very sensibly checked the progress of tuberculisation in the lungs, when that disorganizing process has been fully established." vol. 2, p. 380.

Notwithstanding, however, the confident assertions of the author as to the incurability of this disease, we consider the fact as well established as any in medicine, that cicatrization of tuberculous cavities does occur, and much more frequently than has been imagined. The modern pathological works contain ample evidence in favour of this assertion.

We shall not say more of the author's style than that it is often turgid, and not unfrequently, we think, violates good taste. This, however, may be regarded as a matter of opinion, on which an honest difference may exist.

"This article" [naphtha) he remarks, "and the one next to be considered [oleum jecoris aselli] are in a point of culmination, whither they have ascended with a rapid progress. Two more certain remedies for that indomitable affection, phthisis pulmonalis, have appeared, and they now blaze in glorious altitude over our heads." And again:

"Naphtha has already commenced a rapid descent from its late zenith ascension, and is doomed to be numbered, ere long, among the multitude of other remedies which have fretted a brief hour upon the stage, and then are heard of no more."

Of naphtha, Dr. Harrison's experience is similar to our own. "In our City Hospital," he says, "and likewise in private practice, we have seen it fairly tested, and the result of our experience of the remedy is, that it has no particular effect on the cure of any serious pulmonic lesion, but that it acts merely as a stimulating expectorant."

The work is printed in good sized type on a page certainly not crowded. Typographical errors, however, are by no means rare, and several of the proper names and technical terms are incorrectly given—as for example:—Thompson, for Thomson, Cuissinier, Lugoll, Bartley for Battley, Guertonian for Guestonian, Mandel for Mandl, Brichatan, for Bricheteau, Bouillard, for Bouillaud, Cruvielhier, for Cruveilhier, Muller for Müller, Liebeg, &c. We may remark also, that we know of no such person as *Prof.* Copland. Bichlor-

met of Mercury is printed for Bichloruret of M. We observe also, Guiacum,Hæmoptisis, Strichnine, Depillatory, Idiodide of Potassium, Dryobanops for Dryobalanops, &c.

Yet these errors are comparatively venial, when we turn to the formulæ and witness the jumble of languages in which they are written, and the numerous weighty errors. In a work especially intended for the Student, such inaccuracies are altogether inexcusable. Take for example the prescription given to elucidate the theory and art of prescribing.

(Basis) Carb. Ammoniæ, ʒj
(Adjuvant) Gum Camphor, ℈ss.
(Corrigent) Vin. Ipecacuan., ʒij.
(Intermediate) Gum Arab. and Sugar, *aa* ʒij.
Water, ℥vj.

And another from amongst the Formulæ, (p. 73.)

℞ Hydrarg. Protiod. gr. xx.
Lard, ℥iss.
Ol. Bergamot. gtt. xx.

What the following formula means, demands some stretch of the imagination. We have guessed at it, however.

Atropic [Atrophic?] solution.
℞ Potas. Hydriodat. ʒiv.
Ess. Pppt. [?] ʒij.
Syrup, ℥j.
Water, ℥viij.

The absurdity of the formulæ will be more strikingly seen by writing them at length. We take the last.

Recipe.
Potassæ hydriodatis, drachmas quatuor.
Essentiæ menthæ piperitæ, drachmas duas.
Syrup, an ounce.
Water, eight ounces.

Surely, either the Latin or the English should have been exclusively adopted.

A Dictionary of Terms used in Medicine and the Collateral Sciences. By Richard D. Hoblyn, A. M., Oxon. *First American from the second London edition. Revised with numerous additions*, by Isaac Hays, M. D., Editor of the American Journal of the Medical Sciences. 12mo. pp. 402, Philadelphia, 1845.

It is not long since, in the execution of our editorial functions, we had to animadvert in strong language on a so-called "Medical Lexicon," and to show it to be utterly unworthy of attention: it was an "original" production, strikingly so, indeed, in every respect. We have now the first American edition of a work having a similar object, which has been for years before the medical public of Great Britain; and which — under the rage for re-printing every thing that is published abroad, and thus avoiding the additional expence of copywright—appears now, for the first time, among us,—"Americanized" by the efforts of one of our own physicians. The first edition of Hoblyn's Dictionary appeared in 1835. In 1844, it passed to a second edition; and from this the edition before us has been printed.

Hoblyn's work is very different from the paltry vocabulary criticized by us some months ago. It has well founded pretensions to notice, although often sufficiently unprecise, defective, and occasionally erroneous. The whole duodecimo consists only of 402 pages; yet it professes to embrace, in addition to the "terms used in medicine," those employed also in the "collateral sciences." The searcher for information must expect, therefore, to be frequently disappointed, not only by finding omissions, but by the vagueness and insufficiency of the definitions. Still—as the respectable publishers state "its object is to serve as an introduction to the larger and more elaborate Dictionaries"—it may fulfil a useful purpose.

The first English edition contained many positive errors, most of which, we are glad to see, are corrected in the second. The American editor has added numerous terms; some of which can scarcely be regarded as appertaining exclusively to medicine and the collateral sciences, and certainly are to be found in every English Dictionary. "The Editor," he remarks, "has availed himself of many sources of

information in preparing his additions, to which he need not especially refer;" but "he cannot omit to acknowledge his indebtedness to the admirable United States Dispensatory of Professors Wood and Bache, of which he has made much use, particularly in relation to the vegetable Materia Medica of the United States." Yet we think the respectable gentlemen referred to would not consent to affiliate, without proof of the parentage, some of the terms appertaining to that Materia Medica, which are to be found in the Dictionary.

In casting our eyes over the additions of the American editor, we have marked the following points, which we think worthy of notice, and correction :—

Under ACME, there is the error, doubtless typographical, of Ραραχμη, for Παραχμη. AFFERENT is said to be an "epithet given to the vessels which convey lymph to the lymphatic glands," but it is not restricted to these. We constantly speak of "*afferent* nerves," and "*afferent* blood vessels." AGRIMONIA EUPATORIA is said to be a deobstruant. ANTIRRHINUM is written *antirrhenum.* ARUM TRIPHYLLUM is written *A. triphellum.* Keratocele is placed under C instead of K. IRIDECTONICA exists for *Iridectomia.* DICTAMUS ALBUS for *Dictamnus albus.* Hooper, is given as the authority for DISPENSATORY, in the sense of "a book, which treats of the composition of medicines." It is as old as Lord Bacon. DOCIMASCIA PULMONALIS appears for *Docimasia pulmonalis.* EMPYRICS (under dogmatic) for *Empirics.* The definition of EFFERENT is liable to the same objections as apply to that of Afferent. It is said to be "a term given to vessels which convey a fluid from glands." The definition of ELABORATION is certainly not well *elaborated.* Elaboration is said to be "the different changes which assimilable [?] substances undergo by the action of the living organs, before becoming nutritive [?]." We feel that we know what this means; but assuredly not from our acquaintance with the English language. How then can the tyro comprehend the definition? GIBBOUS is said to be "an irregularity or swelling on the back or other part of the body"—instead of *Gibbosity.* Under Hardhack, SPIRÆA is printed Spirœa. Under SPIRÆA it is right. NEPETHA CATARIA, exists for *nepeta c.* In the following definition, NERVOUS and NERVOUSNESS are confounded :—"NERVOUS, be-

longing, or relating to the nerves; strong, vigorous; excessive irritability or mobility of the nervous system." PHILLANDRIUM is written for *Phellandrium*. PHENOMENA is said to be "any appreciable *change* which takes place in an organ or function." BALNEUM MARIS originally meant—as the American editor has it—"a saltwater bath;" but, at the present day, *Bain marie* is generally used by the French for a water bath of any kind. EXHIBEATUR means "let it be given." INC. would certainly be a faulty abbreviation for "*Incide, Cut*;" we have never met with it authoritatively; nor can JUL. for "Julepus, a julep," be considered any better. The same may be said of MAC. for "*macera, Macerate;*" and MAN. for "*manipulus*, a handful." Nor have we ever seen MI. PANIS for "*mica panis*, crumb of bread;" MIC. PANIS would be the proper abbreviation. PUBIS, "relating to the pubes," means, we apprehend, "PUBIC, relating to the pubes or pubis." PYELETIS is an evident misprint for *Pyelitis*. The definition of RATTLE is "Râle, rhoncus;" it ought to be "*rhonchus*." SABATIA ANGULARIS should be *Sabbatia angularis;* SARCOLEMMA is derived from σαρξ, 'flesh,' and λεμμα 'a coat,' not λαμμα. The latter is a typographical error in Dunglison's Dictionary. "SCABEUS, the herb of Erigeron heterophyllum and H. Philadelphicum," doubtless means "SCABIOUS, the herb of Erigeron heterophyllum and E. Philadelphicum." Under SCLEROPHTHALMIA, we are told, that "ÆTIUS applies this term to hordeolum." No such physician as Ætius ever lived. The name of the author of the Tetrabiblos is Aëtius, Αητιος. When written Ætius it is a positive error. Under SIGNATURES, DOCTRINE OF, we have "*Ars signata*" and "*cabalistic art*," as synonymes. With the former term we are not familiar. The latter cannot be a synonyme. The doctrine of signatures might be regarded as forming part of the cabalistic art; but assuredly not the whole of it. SLEEP is defined to be "the cessation of the activity of the cerebral hemispheres and ganglia of special sense, while the medulla oblongata and spinal cord is (are) in complete functional activity." This is the state of the nervous system *during sleep*, as given by Dr. Carpenter; but it is no definition of sleep. Moreover, the medulla oblongata and spinal cord are only in a state of activity in their gray portion. The medullary portion is in the same state of inactivity as "the cerebral hemi-

spheres and ganglia of special sense." We apprehend, too, that "ganglia of special sense" required defining as much as sleep. The whole definition reminds us too much of the well known meaning of "network," given by Dr. Johnson :—"any thing reticulated or decussated, at equal distances, with interstices between the intersections."

We have made these random remarks in running over the Dictionary, which is well printed ; but doubtless some of the errors are typographical. It is difficult, indeed, to avoid them in such a work. Still, typographical errors are to be deplored in a work intended for the tyro. Of the terms used in the collateral sciences we have taken no notice. They are open, however, to the same animadversions that have been made on the others. Hoblyn's Dictionary, then, may be adapted for a limited sphere of usefulness; but it can never be a sufficient accompaniment to the student who desires to have that information on every matter appertaining to his profession, which a more complete medical dictionary affords. We certainly, therefore, cannot accord with the London Spectator—not a medical newspaper by the way—in the opinion printed on a fly leaf of the work before us, that "it is a learned, pains-taking, complete and useful work,—a Dictiontionary absolutely necessary in a medical library." It is doubtless "learned," but not "complete ;" "useful," but not "absolutely necessary ;" and as for "pains-taking"—who ever heard of a "pains-taking" dictionary !

The domestic management of the Sick-Room, necessary, in aid of medical treatment, for the cure of Diseases. By Anthony Todd Thompson, M. D., F. L. S., etc. etc. *First American, from the second London edition. Revised, with additions,* by R. E. Griffith, M. D., &c. pp. 353. Lea and Blanchard. Philadelphia, 1845.

This is a useful book, and particularly valuable to young physicians who are just entering upon the active duties of their profession. For nurses, too, and others who have occasion to attend upon the sick, provided they have intelligence enough to comprehend the directions it contains, (which is too seldom the case)

it will be found to contain much judicious instruction on all the points necessary for them to be informed. On a hasty perusal we have found nothing indeed to object to, except the portion of *Chapter VIII*, and "*Supplement*," which treat of "domestic medicines." All attempts to popularize medicine, and especially by giving formulæ for the use of those unskilled in the science, in our apprehension, do harm. On no other subject are shallow draughts more apt to intoxicate the brain.

A Practical Treatise on the Diseases of Children. By James Stewart, M. D., A. M., Fellow of the College of Physicians and Surgeons of New York, &c. &c. *Third edition, carefully revised and enlarged.* 8vo. pp. 544. Harper and Brothers, New York, 1845.

When we read the title page of this publication, we expected, as we presume any one else would, that it was something different from the second edition—that it had really been "*carefully revised and enlarged*," and we turned over its pages with some anxiety to see wherein it had been "*revised*," and to what extent and in what manner it had been "*enlarged.*" Alas! we could find no evidence of either. The first thing that struck our eye was that it contained precisely the same number of pages as the second edition, and that the matter of the last page terminated just in the same manner and place in each—that the *Index* in each edition commenced on page 542, and ended on page 544—that the matter or text of the volume, in both cases, not only terminated in each on page 541, but in precisely the same part of the page, and in both cases with a "*Note to Vaccination*," consisting of the same number of lines, and containing precisely the same words, and exactly the same typographical peculiarities. On comparing different parts of the two editions, we found the same identity throughout. We recollected then that the second edition was stereotyped, and we saw at once that the present, or so-called *third edition*, was nothing more nor less than the striking off of an additional number of copies from the same unaltered plates, with no revision, and no enlargement whatever! The only changes discernible are in substituting *third* for *second* edition,

the names of "Harper and Brothers" as publishers, for the Messrs. Langley, and in the substitution of 1845 for the year in which the former edition was published. On the back of the title page, too, the annunciation that the work was stereotyped, contained in the former edition, is omitted in this! Why is this? The treatise is a good one, and needs no meretricious means of support; we must presume therefore that the alteration made in the title page was done hastily, and without thinking of the inconsistency it involved—otherwise, it would not comport with the high character of the eminent publishing house from whence it proceeds.

THE MEDICAL EXAMINER.

PHILADELPHIA, NOV., 1845.

HEALTH OF PHILADELPHIA.

The Reports of the Board of Health, as well as the observations of the most extensive practitioners of medicine, show the present to be an extraordinarily healthy season in Philadelphia. We hear of small-pox in some of the neighbouring cities, but in this place we know of no contagious, epidemic, or other diseases of a serious character—nothing more than the ordinary occurrences, such as colds, accidents, &c. The season has been mild, and the autumn, thus far, more exempt from storms and foul weather than we have almost ever experienced.

EXPLOSION OF SALTPETRE.

Many of our readers probably are aware that at the recent great fire in New York, a violent explosion occurred, by which the conflagration was rapidly extended and great damage caused. As gunpowder is not permitted, under an ordinance of the city, to be stored in any amount within the limits of the corporation, and as it has been

stoutly denied by the occupants of the premises where the explosion occurred that there was any on the ground, much speculation and inquiry has been invoked to account for the circumstance. It is admitted, we believe, that there was a large quantity of Saltpetre there, and the opinion having been advanced that when heated to a high degree, it will explode, especially when in contact with water, the subject has been submitted to the judgment of a number of chemists, and the following, which we copy from a morning paper, appears to be the result—if result it may be called where nothing is decided:

"*Explosion of Saltpetre.*—The Committee appointed by the Common Council of New York, conclude their report relative to the explosion of saltpetre as follows:

That as far as conviction can be afforded by human testimony, your committee have had entire demonstration that there was not in the building of Crocker & Warren at the time of the explosion, or at any time anterior, any gunpowder or other substance usually deemed explosive, and that if the explosions did not result from saltpetre or its combinations with other materials, no cause for the explosions can be discovered.

Of the scientific gentlemen who have investigated the subject, the following are of opinion that Saltpetre will explode, viz:—Messrs. Hays, of Roxbury; Silliman, New Haven; Dana, Boston; Durant, Jersey City; and Hare of Philadelphia.

On the contrary:—Messrs. Renwick, Chilton, Curry, Draper and Ellett, of this city, who made the experiments."

MEDICAL CLASSES.

One cannot walk the streets of Philadelphia, at the present time, without being struck with the multitude of strange faces to be seen at every square and in every street. Residents, readily discover in the genteel dress and youthful appearance of the strangers that they belong to our annual class of visitors to the Medical Schools of this city. Judging from the number of students to be seen in the streets and at the Clinics, we infer that the classes of the approaching session will be larger than any that have ever assembled here before. Numerous however as they may be, they will find ample accommodations of the best character, and a hearty welcome from the respectable inhabitants with whom they may have the opportunity or occasion to become acquainted.

RECORD OF MEDICAL SCIENCE.

Report on the Progress of Practical Medicine, Pathology, and Therapeutics.

BY W. H. RANKING, M. D.

§ I.—*Zymotic Diseases.*

1. *Continued Fever.* The period which our present Report professes to embrace has not been remarkable either for the number or importance of the communications upon the subject of fever. We may, however, observe that Dr. Davidson has presented us with a series of aphorisms on the treatment of typhus which cannot fail to recommend themselves to notice by their simplicity, and perfect accordance with those enlightened views of the pathology of the disease which are prevalent in the present day. These observations will be found among our abstracts, and therefore need not be further insisted upon. On the same subject we may refer to memoirs by M. Sandrat and M. Delaroque, in each of which the treatment is discussed at considerable length. The former relies entirely upon the repeated exhibition of Seidlitz water; M. Delaroque endeavours to point out the beneficial effects of more energetic purging. This latter memoir, in other respects, contains nothing which is either new or interesting to the British practitioner, and appears, in fact, to be a mere repetition of the principal points in a work published by the author in 1839, and of which as much notice as it deserves will be found in the *British and Foreign Medical Review*, Oct. 1844.

In a discussion upon the pathology of typhoid fever, in which the Académie Royale de Médecine Belge has lately been engaged, much difference of opinion existed upon the principal propositions contained in a paper read by M. Mascart. The author, in acknowledging the origin of fever from miasmatic intoxication, endeavours to show:—1st, That the effect of the poison is to diminish the quantity of fibrin in the blood; 2dly, That the blood thus diseased excites an inflammation of the lining membrane of the blood-vessels, which inflammation is to be considered as the natural means of restoring the deficiency of fibrin, according to the laws established by Andral and Gavarret; and 3dly, That the ulceration of the intestinal follicles is likewise a natural process by which the morbid poison is eliminated, and consequently that it should not be interfered with. These opinions were combated seriatim by several of the members present, and by M. Fallot in particular, who clearly exhibited their untenability. The first proposition, as he observes, is negatived by the researches of Andral and Gavarret, who distinctly state that the blood undergoes little or no alteration in typhus until the latter stages of the disease. It is also, we may remark, opposed by the more recent investigations of MM. Becquerel and Rodier, which tend to the belief that the fibrin is not diminished in typhoid fever at all, excepting in its most adynamic

type, or when bloodletting has formed a part of the treatment. The second proposition is met by the serious objection that if diminution of fibrin does in reality excite vascular inflammation, that phenomenon ought to occur in all cases in which this constituent of the blood is notably deficient. Such, however is not observed to be the fact either in scurvy, or in the cases in which the blood has been artificially defibrinized, as in the experiments of Magendie. The third proposition, namely, that the inflammation and ulceration of the intestines is a salutary process, is scarcely worthy of formal refutation, the smallest experience being sufficient to show that this lesion forms, in all cases in which it is present, the most serious obstacle to recovery, and that the diarrhæa which it produces is of all the symptoms the one most difficult to subdue.

2. ***Remittent Fever*** has been treated by Dr. Swett in a clearly written essay, the principal object of which is to confirm the opinion previously advanced by Dr. Steward, that the most characteristic lesion in the severe remittents of warm climates is a peculiar condition of the liver, which consists in a blueish gray or slate colour of the parenchyma, with the interspersion here and there of patches of a bronzy tint. The granular structure is at the same time quite distinct, each granule being surrounded by a ring of vascular injection.

3. ***Scarlatina.*** Under this head we have to mention a paper by Dr. Alison, calling the attention of the professsion to the not uncommon occurrence of pericarditis as a complication of the cutaneous affection. The author cites the names of those writers who do, as well as of those who do not, allude to this subject, and it appears that the latter are greatly in the majority. From this fact alone we should be disposed to think that the frequency of the complication has been somewhat exaggerated. That the pericardium, however, is liable to inflammation in the course of scarlet fever may be seen in the writings of Drs. Joy and Burrows as mentioned by the author, in those of Dr. Golding Bird, and likewise in the ***Stuttgard Collection of Children's Diseases***, where the occurrence of purulent collections in the pericardium during scarlet fever is alluded to by Von Ammon. There does not appear to be any peculiarity in the type of the fever in which this complication exists, neither does it require any special modification in the treatment which is best adapted to the idiopathic disease; it is necessary merely to bear in mind, that as it supervenes upon an affection which depends upon the imbibition of an animal poison, great circumspection is necessary in the employment of depletory measures.

Dr. Wilshire combats the opinion that the dropsy which follows scarlet fever is in general an inflammatory disease, and maintains, on the contrary, that it is rather one of an asthenic character. In this view of the case we entirely concur, believing it to be especially true as regards the children of the poor, who from circumstances, the operation of which is sufficiently evident, are particularly exposed to the sequelæ of eruptive diseases. Dr. Wilshire speaks highly of

the iodide of potassium in a bitter infusion, as a remedy in these cases.

Dr. Golding Bird, who took part in the discussion which was elicited by the enunciation of the foregoing opinion, speaks of two forms of scarlatinous dropsy, one simple and manageable, the other highly dangerous, inasmuch as the blood contains some of the uneliminated elements of the urine. In another place he endeavours to explain the more frequent supervention of the dropsical symptoms upon the slight than the severe forms of the eruption, somewhat after the following manner. He supposes it to be conceded that the disease originates in a poison, the primary location of which is in the blood. The two principal features of the disease, namely the eruption on the skin, and the erythismic excitement of the mucous surfaces, are the means which nature makes subservient to the elimination of this poison. If, therefore, the rash be well developed, the system is effectually disembarrassed of the morbific agent; but if not, the poison not being all excreted, some of its recognized after-effects result. How, he inquires, are these effects induced? Granting the existence of the imperfectly exhausted materies morbi in the blood, attempts will be made after the subsidence of the eruption, to eliminate this matter by one or other of the emunctories of the body. The kidneys are the organs by which matters in solution in the blood are usually excreted; and either from deficient determination to the skin in the first instance, or from the application of cold subsequently, are made to assume a supplementary duty; their capillaries therefrom become dilated, and congestion ensues. The consequence of this is a double lesion of their function; on the one hand, exudation of the albuminous element of the blood, and on the other retention of the nitrogenized products. Contemporaneously with this, serous effusion generally, but not invariably occurs.

Dr. Corrigan describes a peculiar and very fatal form of scarlatina anginosa, which he states has not been noticed by any preceding writer. In this, however, he is in error, as the same form is clearly alluded to by Dr. Watson (Lectures, vol. ii. p. 758) who, it may be observed, also acknowledges its great severity. This variety of the disease consists in the rapid swelling of the parts beneath the angle of the jaw, without any corresponding inflammation of the throat internally. The swelling occasionally arrives at an enormous size, and the child usually sinks under the sloughing of the cellular tissue, or from the effects of pressure upon the cervical blood-vessels. Dr. Corrigan especially warns the surgeon against opening the tumour, or making incisions through the integuments, which he might otherwise be tempted to do, under the impression that he had met with a case of diffused cellular suppuration. He has never seen the slightest benefit from such a proceeding, and when it has been practised the cellular tissue, instead of containing pus, has been found to be infiltrated with dirty-looking serous fluid. The only treatment which can be relied upon is that of the preventive kind, and which consists in the application of relays of a small numbe of leeches; but this must be insti-

tuted before the inflammation is fairly established, or the patient will, according to Dr. Corrigan, be inevitably lost. The same affection is apparently referred to by M. Rostan as forming a serious complication in typhoid fever.

In connexion with the subject of scarlatinal dropsy, Dr. Golding Bird details a simple method of detecting urea in the blood and serous fluids. The blood having been allowed to coagulate, the serum is to be decanted, and shaken up with an equal quantity of rectified spirits, which cause the precipitation of albumen. The mixture is then to be filtered, and the filtered fluid, after having been evaporated to two drachms, is to be treated with an equal bulk of dilute nitric acid, and again filtered. The filtered fluid being slowly evaporated on a watch-glass, will exhibit the feathery crystals of nitrate of urea. The treatment recommended by Dr. Bird in this form of dropsy is simple, and, according to our experience, generally successful. It consists in the endeavour to promote active diaphoresis by the use of the warm-bath and small doses of the Vin. ant. potass. tart. in julep. ammonia.

4. *Glanders.* The possibility of the transmission of this fatal disease from animals to man, though long doubted, and even by some disbelieved at the present time, is nevertheless a fact, which may be considered as incontrovertibly established. The case reported by M. Pavard is a faithful portrait. To those of our readers who are anxious to be acquainted with all that is known upon the subject, we would suggest the perusal of a paper by M. Rayer, published in 1837, of which an excellent notice will be found in the *British and Foreign Medical Review*, January, 1842.

§ II.—*Diseases of the Nervous System.*

5. *Insanity.* The melancholy subject of mental derangement receives increasing attention. Among the most important additions to our knowledge in this department, which the last six months have produced, we may refer to the Reports of Dr. Conolly, on the Lunatic Asylums of Paris and other French towns, and to that of the Commissioners upon the condition of Lunatic Asylums in England and Wales. The latter affords a sad picture of the abodes of pauper lunatics in particular in this country, but in some degree also inculpates those intended for the reception of the wealthier classes. There is one practical fact elicited by the inquiry of the commissioners which, although not new, is yet worthy of repeated mention; it is that of a large proportion of cures among patients admitted within three months of their first aberration, as compared with those who have been kept at home, or in the workhouse for longer periods.

In a series of lectures now in the course of publication by M. Baillarger, the hereditary nature of insanity is strongly insisted upon. According to the observations of M. Baillarger, the transmission of the malady is to be apprehended under any of the following circumstances:—when the father or mother is insane at the time of or previously to conception;—when the father or mother have insane blood

relations;—when they are remarkable for eccentricity or violence of character:—when they have suffered from diseases of the nervous system; if either have committed suicide, or has been addicted to drinking, or is old relatively to the other.

Mr. Grantham and Dr. Winslow remind us of the great importance of paying attention to the premonitory signs of mental derangement, for it is at this time that the patient stands as it were upon neutral ground, and that the question of his restoration is often to be decided. The symptoms indicative of the approach of mania which are clearly described by the latter writer, are, he thinks, in most cases to be referred to bodily derangement, and do not depend, as is thought by some, upon purely psychological disturbance.

Some useful remarks upon that form of insanity which is occasionally seen to follow the exhaustion induced by prolonged suckling, are to be found in Dr. Ashwell's late work. The treatment therein recommended is such as would be instituted by any well informed practitioner, and embraces weaning the child as a sine qua non, together with the persevering use of tonics, combined with sedatives, pure air, and exercise proportioned to the strength.

6. *Apoplexy.* The pathological conditions of the cerebral portion of the nervous system, have always been held to be the most difficult to be comprehended of any to which the human frame is amenable. There is a want of correspondence between lesions and symptoms, a want of uniformity in the manifestations of diseased action, which renders the subject one of surpassing intricacy. Not the least remarkable property connected with cerebral diseases, is the fact which is frequently manifested in the malady under consideration, that precisely the same train of symptoms may be produced by causes diametrically opposite; as, for example, by too much blood circulating in the vessels of the brain, and too little,—by a state of plethora as well as by that of anemia. This being the case, it becomes a question of the most vital consequence in practice to determine, to which of these conditions a given apoplectic seizure is to be attributed. This question is not so ready of solution as might at first sight be supposed. The tendency of medical men in general is too much to regard all apoplectic attacks as the result of fulness, whence bleeding is as much too frequently adopted. But that such a mode of viewing the phenomena of the disease as a general rule is as erroneous as the treatment arising out of it is dangerous or even fatal, will, we are convinced, become daily more universally admitted. The small amount of influence which the practice of bloodletting exercises in the cure of apoplexy is sought to be established in a late publication by Mr. Copeman, upon the evidence of statistical data. Although we cannot admit that all the cases upon which the deductions of this author are based, are the best which might have been selected, they are still, we think, sufficiently trustworthy to be recorded as an approximation to the truth. It appears that of 155 cases of apoplexy in which the treatment is specified, 129 were bled, and only 26 were not; of the former number, 51 recovered, and 78 died: the cures, therefore, were

as 1 : 1½ ; the deaths, as 1 : 1 2-3ds. Of the number not bled, 18 were cured and 8 died, the proportion of cures being as 1 : 1½ ; of deaths, as 1 : 3¼. Abstracting a certain number of these cases in which the bleeding consisted in the application of a few leeches only, we reduce the figures to 112 ; of those 38 recovered, and 74 died, i. e., there were two deaths where bleeding was practised to one cure. Although, as has before been said, these facts are to a certain degree imperfect, and like all deductions connected with so inexact a science as that of medicine, which are based upon the numerical method, are open to objection, they must, nevertheless, have the tendency as far as they go to place the abstraction of blood as a general remedy in apoplexy in an unfavourable light.

It is still however unquestionable, that in a certain number of cases of apoplexy, free bloodletting is imperatively called for. How then are these cases to be distinguished? The author above-mentioned places great confidence in the appearances of distension of the external vessels of the head; but this rule will in many cases be fallacious, in those patients in particular in whom constant exposure to the vicissitudes of temperature and season has produced a dilated condition of the capillary vessels of the face. In these persons a florid countenance is perfectly compatible with a state of system intolerant of the loss of blood, and would, therefore, if relied upon, lead to serious errors in practice.

A surer guide in a doubtful case will be found in some observations by Dr. Marshall Hall, which we have considered of sufficient value to merit a place in our Abstract, and to which the reader is therefore referred. We shall merely remark, that the plan of diagnostic bloodletting, as recommended by Dr. Hall, is even as yet scarcely appreciated, and that when judiciously carried out it will frequently be the means of avoiding error, not only in the case in question, but in the many pseudo-inflammatory diseases which the readiest tact occasionally fails otherwise to diagnosticate.

In connection with the subject of apoplexy, we may mention a paper read a short time since before the Medico-Chirurgical Society by Mr. Hewett upon extravasations of blood within the cavity of the arachnoid. The author distributes these effusions into four principal groups; 1st. Those in which the blood is either liquid or coagulated, in the latter case being spread out in the form of a membranous layer; 2d. Those in which the extravasation presents itself in the shape of a false membrane; 3d. Those in which the blood is enveloped in a sac having every appearance of a newly-formed serous membrane; and 4th. Those in which the blood is fluid and encysted. Of these the third division is important in a physiological sense, as it tends to confirm the opinion that the blood is capable of undergoing organization by an inherent action, quite independent of that of surrounding tissues. In other respects the observations of Mr. Hewett are for the most part in accordance with those of MM. Becquerel, Legendre, Prus, and Rilliet and Barthez, the latter of whom, however, notices meningeal apoplexy only as it occurs in infants and

young children. We may remark, *en passant*, that the rare occurence of true sanguineous apoplexy in an infant only eleven days old, has recently been observed by Dr. Campbell.

7. *Ramollissement.* The latest researches upon the subject of cerebral softenings are those contained in a memoir by M. Rochoux. The opinions of this writer differ from those of many previous authors, as Lallemand, Cruveilhier, Carswell, and more especially Durand-Fardel, in the affirmation that the softening of the cerebral substance, which is so commonly seen in the neighbourhood of apoplectic clots, is the precursor and not the consequence of the hemorrhage. This form of softening to which he applies the term "hæmorrhagiparous," he believes to be present in 99 cases out of 100 of sanguineous apoplexy. This is, doubtless, rigidly considered, too exclusive a view of the case, but we are nevertheless inclined to coincide with the author in so much as this—that although sanguineous effusion may undoubtedly occur in the midst of perfectly healthy cerebral substance, that such an occurrence is exceptional rather than frequent; if it were not so, the proverbially uncertain tenure of life would be rendered still more uncertain, taking into account the many causes of vascular excitement to which the brain is continually subjected. The objection to this view which some pathologists, and Fardel among the number, have advanced, that if this precursory change in the cerebral pulp were so often present, it would more commonly make itself known by symptoms, is, as M. Rochoux justly observes, quite invalid, for how frequently do molecular changes go on unsuspected in organs, the investigation of which is far more easy than that of the brain?

M. Rochoux is likewise at issue with Durand-Fardel and others with respect to the pathological indications of the cavities filled with a yellowish coloured serum, which are frequently found in the brains of persons who have had an apoplectic seizure. He believes them in all cases to be the remains of apoplectic clots; M. Fardel, as may be remembered, considers that they are indicative of softening only, and not of hæmorrhagic effusion. The question, which is one of great interest, must be regarded yet as sub judice, for until we are able to appeal to a numerous series of carefully recorded cases of persons dying at progressively advanced periods after apoplectic seizure, no conclusions can be arrived at which can be received as worthy of confidence. M. Fardel has, we are aware, attempted this to a certain extent, but a more numerous selection of cases is required in order to give that value to his deductions which he is disposed to attribute to them.

The dependence of white softening of the brain upon suspension of a portion of the cerebral circulation, has been long recognized as an occasional consequence of ligature of the carotid artery. In a case which has lately been reported by Dr. Todd, the analogy of this lesion to senile gangrene is very distinctly shown. The patient was the subject of dissecting aneurism of the aorta, which had completely arrested the flow of blood through the right carotid artery.

Soon after the original seizure, which partook of the nature of syncope, he became paralytic on the left side. After death the right centrum ovale exhibited a perfect specimen of white softening, the entire hemisphere being anæmic. The case is one of peculiar interest in other points of view, and will well repay the perusal.

8. *Cerebral Abscess.* The intimate connexion between abscess of the brain and affections generally of strumous origin, commencing in one of the structures of the internal ear, has been made the subject of a communication by Dr. Cormack, which, however, need not detain us, as it contains nothing with which the profession has not long been familiar.

9. *Encephaloid Disease.* Dr. Cowan has published two cases of this rare disease of the brain. As might be supposed, although there was ample evidence, in both instances, of organic mischief in the cerebral mass, nothing transpired to afford the slightest clue, at the time, to the real nature of the disease. Dr. Cowan, however, thinks, that as far as the evidence of these cases can assist the diagnosis, that malignant disease of the brain may be suspected when, in addition to distinct symptoms of organic change, pains of a neuralgic character are present, and are accompanied by gradual emaciation and a cachectic appearance.

10. *Epilepsy.* The only observations worthy of record upon this subject, as involving anything of novelty, are those of M. Selade; who has devised a method of treatment, founded upon the fact of the occasional suspension of the disease by the supervention of intermittent fever. His plan consists in the endeavour to establish an artificial intermittent, by the use of such means as bring about a state resembling the several stages of the genuine disease. Thus, in order to induce the factitious cold stage, the patient is submitted to a prolonged immersion in cold water. He is then placed in a heated room, and covered with bed-clothes, until the hot and sweating stages are counterfeited. Dr. S. states, as the result of his observations, that after the repetition of this process for a few times, at the same hour, the artificial intermittent establishes itself without the intervention of the bath; and details two cases in which obstinate epileptic attacks were thus completely and permanently removed. The subject of epilepsy has also been treated of, if in a less novel, certainly in a less fanciful manner, by M. Rodier, who speaks highly of the scalp issue, and by Dr. Blackmore, whose remarks we have elsewhere given.

11. *Neuralgiæ.* Among the additions to our knowledge in this important class of diseases, we may refer to a monograph by M. Merat, which treats principally of the painful affections of the ganglionic nerves. In the treatment of these, the author recommends the powder of valerian, and the Sedum acre, in large doses. The Cannabis Indica has likewise been suggested as a remedy for neuralgic diseases, by Mr. Donovan; as also tobacco, by Mr. Chippendale; the expressed juice of the mistletoe, by Mr. Hardy; and electricity, by Professors Wisgrill and Wirey. The extract of misletoe is used

in the form of a plaster, applied over the affected nerve. The pain is said in most cases to subside in a few minutes. In addition to these instances, we may mention that Mr. Rynd proposes the treatment of obstinate tic by the direct inoculation of the nerve with narcotic substances. He relates two cases, in which the acetate of morphia, in solution, introduced by means of puncture, was eminently successful. In reference to this suggestion, we may remark, that Mr. Rynd has been anticipated by M. Jacques, (*Annuaire de Therapeutique*, 1844,) who appears some time since to have adopted the identical process which he has recommended.

12. *Tetanus.* The periodical literature of the last few months holds out to us considerable encouragement in the treatment of this usually fatal disease, by the record of several cases, in which the means adopted have been followed by success. Of these Mr. Donovan relates two, and Professor Miller one, each of which yielded to the employment of the Cannabis Indica. The cases which occurred to the former writer place the powers of the medicine in a very favourable view; the first patient having recovered after taking 134 grs., although before its exhibition the spasms recurred every four or five minutes. According to Professor Miller there is a marked tolerance of this remedy in tetanic cases, and the unpleasant effects usually consequent upon its prolonged use are seldom observed.

Two cases have likewise been lately recorded in which material benefit, and in one case complete success, followed the use of ardent spirits in intoxicating doses. The first case is one related by Mr. Stapleton, in which the tetanic spasms were entirely suspended, but the patient was not saved. The second occurs in a paper read before the Medico-Chirurgical Society by Dr. Wilson. The patient, who was under the charge of Mr. Ilott, of Bromley, was obviously cured by the exhibition of brandy in enormous quantities, opium being at the same time studiously avoided. During the period of eight days, the patient took as much as two gallons of brandy, in addition to wine, &c. The discussion which followed the reading of this case chiefly turned upon the value of opium in tetanus, upon which the most opposite opinions appeared to be entertained. Among those, however, who supported the relater of the case in his opinion of the inutility of narcotics, were Dr. Wilson, Mr. Solly, and Mr. Curling. The subject of tetanus has also been treated of by Dr. Inglis, and Mr. Stafford. Amid the conflicting testimony which we meet with respecting the treatment of this fearful malady. it is difficult to arrive at any satisfactory decision as to the plan most likely to be successful. The fact, however, that the majority of tetanic patients appear to die by asthenia, affords strong evidence in favour of the propriety of the method adopted in the cases last related.

§ III.—*Diseases of the Respiratory System.*

Upon this class of diseases we have to notice many interesting communications. Of those which relate to the diseases of the respiratory system in general, we call the attention of our readers with peculiar pleasure to a paper by Mr. Sibson, which has for its object the determination of the topographical changes which the thoracic organs undergo in disease. The value of this laborious essay in the study of chest diseases cannot be too highly estimated; and whoever fails to make himself familiar with its contents, will be without excuse for those errors in diagnosis which it is so well calculated to obviate. We offer no apology for thus alluding to a work which, though recent, does not strictly come within the prescribed limits of our report, the fact that it is published in a form which precludes its general circulation, is, we conceive, a sufficient reason for its mention.* It is not our intention to analyse this paper at the present time, as we shall have to refer to it on more than one occasion. We shall pass at once to the subject of

13. *Phthisis Pulmonalis.* The first work which we are called upon to notice under this head, is one recently published by Dr. Evans, in which doctrines widely different in many respects from those in common circulation are enunciated, but which will not, we imagine, be very generally received. According to the views of this author, that product, which we have always been taught to consider as of primary importance in the pathology of the disease, namely, tubercle, plays but a secondary part; being no more, to use his own expression, the cause of the disease, than the pus is of pneumonia. Neither are the symptoms of phthisis allowed to depend upon the presence of this deposit; the emaciation, hectic, cough, &c., being all ascribed to pulmonary irritation, and active pulmonary congestion, combined with what he terms a "diminished force of growth." As may be surmised from these opinions, the author is a believer in the inflammatory origin of tubercle; that product being, according to him, only a modification of pus, and secreted under certain states of constitution in the same manner. Pulmonary irritation is, with him, the most important condition to which the consumptive patient is exposed, that being in all cases the precursor and cause of the more serious and fatal symptoms. It is necessary, however, to state, what it is that the author designates by the term irritation. He observes that in a pathological point of view, irritation consists in the presence of a diminished quantity of blood in the affected tissues, which, in consequence, become dense, contracted, and pale, the natural secretions being at the same time suspended. This condition as it occurs in the lung he considers to be declared by an exaggerated respiratory murmur. We must here remark that, although we may not be disposed to object to the author's definition of irritation, if by that term

* Since the above was written we are happy to find that the essay alluded to has been published in a separate form.

he means to designate the same state of capillaries which, as in the experiments upon the web of the frog's foot, (James *on the Nature of Inflammation*,) is brought about by a puncture or other means, and is the precursor of those vascular changes to which the term inflammation is applied, we must still doubt that such a condition ever precedes the deposition of tubercular matter, in the relation of cause. It is, moreover, we must confess, perfectly unintelligible to us how a state of lung in which the "tissues" are "dense," "contracted," and "pale," and in which, therefore, the air-cells must be diminished in capacity can be evidenced by a sign which presupposes the admission of a preternatural quantity of air.

We shall pass over the author's opinions respecting the origin of tubercle, and briefly allude to his mode of treatment. This he divides into sections corresponding to the different stages of the disease. We have, therefore, the treatment of the phthisical predisposition, that of pulmonary irritation, of the period of inflammation, and of suppuration.

The first stage, or that of predisposition, is, according to Dr. Evans, signalized by a "deficient force of growth," causing atrophy of the red tissues, and muscular weakness, emaciation being sometimes an accompanying symptom, at other times an increased deposition of fat. In the latter case, especially if the pulse retains its ordinary frequency, [some might reasonably doubt wherein the phthisical tendency consists in these instances] in addition to the means presently to be mentioned, the author allows wine and fermented liquors. In the former, these must be strictly prohibited, and in their place we are to exhibit such medicines as are capable, according to Dr. Evans, of diminishing the "conducting power of the nerves," such as opium and hydrocyanic acid. In addition to this, nutritious diet, pure air, &c., are indispensable. In meeting the second indication, or that of the treatment of pulmonary irritation, the author insists upon the necessity of distinguishing whether the irritation be primary or secondary. The treatment varies in the two cases. The circumstances which generally give rise to secondary irritation of the lungs are said to be chronic inflammation of the larynx, womb, and kidneys. The treatment, therefore, resolves itself into that most suitable to the disease to which the pulmonary complication is sympathetic, combined, it may be observed, with those means best calculated to allay the secondary irritations themselves. The author avoids the mention of the treatment of the uterine and kidney affections, and confines himself to that of the larynx, which consists in mercury, counter-irritation, leeches, seton in the neck, and painting the part externally with iodine or nitrate of silver. The special treatment of the pulmonary irritation is, inhalation of the vapour of water, with counter-irritants, and small doses of opium and prussic acid.

The author now addresses himself to the management of the third stage of phthisis, that of pulmonary inflammation. Here, as he very properly observes, great difficulty arises, in consequence of the fact that those means which are best calculated to subdue the pulmonary

inflammation, viz., depletion, &c., are, unfortunately, the most likely to confirm the tuberculous predisposition. The practical tact of the physician is shown in the manner in which he steers between this Scylla and Charybdis in therapeutics. It is here that Dr. Evans relies upon the treatment by repeated counter-irritation, the advantages of which he appears to have just appreciated in rather a disreputable school it must be allowed,* but which, if he is to be believed, is a striking instance of the fact, that good may sometimes arise out of evil. The plan he adopts is that of stimulating liniments repeatedly applied to the whole chest, and consisting of equal parts of spirit of turpentine and acetic acid. In the treatment of the suppurative stage, as laid down by Dr. Evans, there is nothing to detain us.

We have thus endeavoured to lay before our readers a brief abstract of the general tendency of the author's views; from many of which we, however, think it right to express our dissent, premising at the same time that there is much that is indicative of unusual practical acumen, and calculated to excite reflection upon a disease which we are all too apt to abandon as inevitably beyond the reach of our art.

That phthisis pulmonalis occasionally undergoes a spontaneous cure has long been believed upon the evidence of the cicatrices and cretaceous remains which are sometimes found to exist in the lungs of persons in whom the disease had either never been suspected during life, or whose pulmonary symptoms had entirely subsided. Dr. H. Bennett endeavours to prove that this fortunate termination is far more frequent than is generally suspected, and supports his opinion by statistical data, which may be thus briefly recapitulated:—

Of 73	cases examined by himself, cicatrices, &c. were found in	28
135	. . . M. Boudet, ...	116
100	. . . M. Rogée, ...	51
308		195

So that, of 308 cases, the appearance alluded to was found in more than one half. It would afford us much gratification to be able to believe that Dr. Bennett had not overrated the frequency of the spontaneous cure of tubercle as thus supposed to be indicated. But this we cannot do. We do not doubt in the least degree the correctness of the data he has produced, but the deductions drawn therefrom do not appear to us to be in all cases trustworthy. That the presence of cretaceous concretions in the upper lobes of the lung are a proof of the previous existence of tubercular deposit may readily be conceded, but it may be thought questionable whether the puckered cicatrices which, by the author's own admission, are often found to exist alone, are in all cases to be referred to the same lesion. The

* Under St. John Long.

pulling-in of the surface of the lung may be produced by other causes than that of the healing of tubercular cavities, as for instance by that peculiar contraction of the pulmonary cellular tissue described by Stokes under the term *cirrhosis* of the lung, and also as Fournet has shown by the mechanical effect alone of pleural adhesions. With deference to Dr. Bennett, we are constrained to believe that such has been the origin of the appearance in some of his own as well as in the cases of Boudet and Rogée.

Dr. Hennis Green has called our attention to certain striking differences which are to be observed in the phthisis of young subjects, as contrasted with the same disease in the adult. The principal distinction is to be found in the fact that tubercular matter is more generally diffused through the lung in the infant, and that its consentaneous deposition in other organs is more frequent. Unlike the disease as it shows itself in the adult, Dr. Green has also observed that the disease is often more developed in the lower and middle lobes than in the upper, the same locality being commonly the site of caverns, when none exist in the upper lobes. This is a practical fact of the great value, and one the knowledge of which may prevent much misapprehension in diagnosis as founded upon the auscultatory phenomena of the disease. The symptoms of phthisis in the child are in many cases exceedingly obscure, since, as has been noticed by Rilliet and Barthez, we are unable to derive the same positive information from the stethoscope as is afforded by it in the adult. The harsh respiration under the clavicle in particular, which is so valuable a sign of tubercular deposition in the latter, may exist to an intense degree in the young child without the slightest lesion of the pulmonary tissue. The cough and expectoration are likewise in the child far from commensurate with the extent of the disease, and hæmoptysis loses the value which the investigations of Louis has attached to it in the adult, as it does not occur oftener than once in five times.

It is also difficult in some instances to distinguish tubercular deposition from lobular pneumonia, for, as has already been stated, the locality of the disease will not, as in grown up persons, afford us any evidence from which the real nature of the consolidation may be presumed. The diagnosis as stated by Rilliet and Barthez, is founded mainly upon the period at which bronchial respiration becomes perceptible, being much earlier in pneumonia than in tubercular infiltration, and less persistent in the former than in the latter. These are, however, it must be allowed, but indifferent rules, and it is to be feared that there are no positive signs by which a sure diagnosis is to be formed. More assistance will be derived in such cases from the history of the attack, and its amenability to remedial measures than from either the stethoscope or rational signs.

We are indebted to Dr. Addison for an excellent essay, in which he points out the important part assumed by inflammation in all cases of tubercular phthisis. He describes the disease under three separate divisions: 1st. Pneumonic Phthisis; 2d. Tuberculo-pneu-

monic Phthisis; 3d. Tubercular Phthisis. The first division constitutes one form of what in common parlance is termed "galloping consumption," and may be either acute or chronic. Of the acute form the author recognizes three varieties, one in which some attempt at reparation is made, as is shown by the presence of gray induration; a second, is that of inflammation arising about the circumference of old induration, and destroying both it and the newly-invaded structures together; the third variety not mentioned.

Of the chronic pneumonic phthisis he admits two subdivisions; one in which old indurations are converted into vomicæ; another in which the lung is universally invaded by gray induration, but is not disintegrated. We regret that the author should seek further to complicate a subject already sufficiently distant from simplicity, by employing the term phthisis in its etymological sense to a disease which has nothing beyond its fatality in common with that to which the term is limited by common consent. We can see no possible good which can compensate for the confusion which may be produced by bringing under the same denomination the affection above described, which is evidently no more than simple pneumonia, and is strictly unconnected with true tubercular consumption.

Under the title of tuberculo-pneumonic phthisis, is described a common form of the complaint in which, although tubercles are present, and the lungs may even be studded with them, the efficient cause of the fatal termination is pneumonic inflammation. The tubercles in these cases are of what Dr. Addison terms the *sthenic* kind, and show little disposition to soften.

The third form of Tubercular Phthisis is the disease properly so called, and of which tubercles of the *asthenic* kind form the essential element. In these cases excavations arise from the softening of the tubercular matter itself, and independently of the destruction of the pulmonary tissue. The author concludes his communication by an examination of the several forms of thoracic disease which may be mistaken for phthisis. These are chiefly:—1. Recent pneumonic inflammation on the upper lobes of the lung; 2. Various forms of pulmonary induration: 3. Pneumonia in the third stage; 4. Simple bronchitis confined to the upper lobes; 5. Dilated tubes; 6. General or partial pleuritic effusion; 7. Pulmonary apoplexy; 8. Malignant disease of the lung.

Antagonism of Phthisis and Intermittent Fever. This remarkable fact first pointed out by M. Boudin has received further confirmation from the observations of MM. Triber, Wolheim, Mayer, Gouzee and Wœmer. M. Fourcault, on the contrary, who appears to have examined this affection in a truly philosophical spirit, has come to the conclusion opposed to M. Boudin, that phthisis and intermittent fever are not mutually exclusive, and that if they sometimes appear isolated, they as often co-exist.

In the treatment of phthisis M. Cossy recommends the exhibition of alkalies, combined with the inhalation of ammoniacal vapours, and M. Forget the recurrence to the ancient remedy, opium. The

former, it may be observed, is an unimportant modification of the method proposed some years back by Dr. Campbell, and has been found by Louis equally inefficacious with all other boasted remedies.

14. *Tubercle.* The anatomical site of the deposit is thus stated by various late writers :—

It is considered to be generally deposited in the elastic cellular tissue of the lungs, less frequently in the air vesicles, and capillary bronchial tubes, by Lebert; in every structure which enters into the composition of the lungs, in the coats of the pulmonary artery, in the walls of the bronchial tubes, in the air cells, and upon and under the pleura, by Sibson; in the interior of the pulmonary cells and the minute bronchial tubes, by Nicolucci and Mr. Rainey. Tubercle is considered to be a modified form of albumen by Evans and Bennett; to have no analogy to pus, by Lebert, or to fibrin, by Rainey. According to the observations of the latter writer, tubercle may be distinguished from fibrin by an examination of the neighbouring capillary vessels. Those adjacent to tubercle retain their natural character, those, on the contrary, which are seen in the vicinity of a fibrinous deposit, are tortuous and varicose. These observations, it may be remembered, are to a certain extent at variance with the researches of Guillot and Van der Kolk mentioned by Louis, (*Walshe's Transl.* p. 29,) namely, that the branches of the capillary pulmonary vessels, so far from being natural, stop short, as they approach tubercular deposit, leaving a space of about two lines in breadth, which for a time at least remains perfectly destitute of vascularity.

The inflammatory origin of tubercle is maintained by Bennett, Evans, and Sibson; denied by Nicolucci and Lebert. We have thus, it appears, made no nearer advances to the settlement of the question. The doctrine of the inflammatory origin of tubercle has, however, always appeared to us untenable; for, setting aside the objections arising out of the relative topographical statistics of this product, and those of inflammation, as established by Louis, there are others to be adduced, which it is equally difficult to reconcile with the doctrine. Tubercle undoubtedly exists as such in the blood; it must therefore either coexist with the fibrin, or be supplementary of it. The latter supposition is entirely negatived by the researches of Andral and Gavarret, which demonstrate that the blood of phthisical patients contains more fibrin than that in any other disease, the pure phlegmasiæ excepted. We must, therefore, of necessity, admit their coexistence in the blood. This being granted, the question of the origin of tubercle, as far as inflammation is concerned, is reduced within very narrow limits. Either the same vital action, i. e. inflammation, existing in capillary vessels, which are separated from each other by inappreciable distances, is capable of giving rise, at the same time, to two totally different products, namely, tubercle and fibrin,—or we must conclude that these products originate in a different vascular action. In other words, we must believe, if we hold the inflammatory theory, that the tubercular deposition, and the

chronic induration in its immediate vicinity, the latter a pure fibrinous exudation, are the result of the same action in contiguous capillary branches. Now, although we do not maintain that it is impossible, we must yet hold that it is improbable that, when the blood holding both the fibrin and tubercular matter in solution, arrives at the site of two given capillaries—one supplying one cell, the other the next—these vessels should be capable of exercising a kind of elective affinity; and one under inflammation, allow the exudation of tubercle—the other, of the true blood-plasma. The difficulty is only to be avoided upon the supposition that of these two processes, namely, tuberculization and pneumonic exudation, going on, as they assuredly do, at the same time, the latter alone is inflammatory, the other is the product of some other kind of vascular action, most probably that which in healthy subjects is subservient to normal nutrition.

On the subject of the general pathology of tubercle, we may direct attention to a memoir by Dr. Cless, to another by Engel, and to the researches of Lebert, before alluded to, the summary of which will be found in our Abstract.

15. *Asthma.* Mr. Harrison has recommended a trial of the fumes of nitrate of potash, in spasmodic asthma, during the paroxysm. The room which the patient occupies is to be filled with the fumes by burning paper which has been dipped in a saturated solution of the salt. This suggestion is not new, the plan having been some time since adopted in America; it is, however, worthy of attention, from the facility with which its powers may be tested.

16. *Black Pulmonary Matter.* The dark-coloured deposit which is frequently found in the respiratory organs of old persons, has been minutely investigated by M. Guillot, without, however, his having contributed much to the elucidation of the subject. The appearance in question was, it is well known, first described by Laennec, and was by him, as well also as by many subsequent writers, attributed to the inhalation of carbonaceous matters. In the cases which are referred to by the author, this opinion could not be entertained, as the patients had never been exposed to circumstances under which the inhalation of such matters was likely to occur. The theory which is favoured by M. Guillot, is that which was long since enunciated by Dr. Carswell, (*Cyclopæd. Pract. Med.*—Art. *Melanosis*,) namely, that it is due to stagnation of the blood in the pulmonary tissues. This view of the case is supported by the consideration, that the instances in which this discoloration of the lung is found, are exactly those in which we should *a priori* expect the pulmonary circulation to be liable to congestion and stagnation; namely, in the old, and in persons whose lungs are emphysematous. Although this black deposit is a physiological rather than a pathological change, it is capable, when it occurs in great abundance, of producing serious mechanical inconvenience, by obstructing the capillary vessels and respiratory canals. The remarkable property possessed by this matter, as stated by M. Guillot, is its power of inducing a modification in tubercular matter. He believes that it operates as a spontaneous

check to the further deposition of that product, by obliterating the new system of capillary vessels, which, he has observed, replaces the obstructed capillaries of the pulmonary artery.

17. *Empyema.* This subject has met with a considerable share of attention of late, more particularly in reference to the operation of paracentesis. Upon the safety and propriety of this operation, the profession is still as much as ever divided; some maintaining the opinion of the late Dr. Hope, that all cases which are curable with, are also to be cured without it; others holding an intermediate opinion, that it is only to be advised as a dernier resort, to avoid impending suffocation; others, again, contending for its positive utility as an early procedure. Among the supporters of the latter view, Dr. Hamilton Roe is pre-eminent, having furnished us with a valuable essay, which will be found in a condensed form in the preceding part of this work and the object of which is to show, by numerical proof, that the operation is both safe and advisable, whenever the fluid either fails to be absorbed, or is clearly ascertained to be purulent. For a more detailed account of the author's practice, in order to avoid repetition, we refer our readers to the abstract, premising that, although we cannot entirely agree with him in the favourable views which he takes of the operation, we must admit that he has placed it before the profession in a far more enticing shape than had been done by any preceding writer.

Among other information connected with the subject of paracentesis or empyema, we may mention a report of four cases operated upon by M. Roushille, three of which were fatal; and of three performed with success by M. Trousseau in the last stage; Dr. Durop also speaks of it in favourable terms, and M. Lutjaerens has reported a case in which a cure was obtained under the most unfavourable circumstances by the injection into the pleura of a weak solution of iodine.

Dr. M'Donnell has remarked the existence of a peculiar crepitation in the lungs after the absorption of pleuritic effusion. The sign he endeavours to explain upon the supposition that it depends upon the entrance of air into the lung which had been compressed, and which from its compression has also become œdematous. This view of the phenomenon has subsequently been supported by Dr. Ojier Ward, having been called in question, as it appears very justly, in the editorial remarks of the Lancet, and there referred to that class of sounds which are known to be produced by the contact of roughened serous surfaces. Whatever be the true theory of the production of this phenomenon, Dr. M'Donnell is not the first to notice it, as it has been long since alluded to by Gendrin, and more recently by M. Damoiseau.—(*Archives Generales de Medecine*, 1843.)

18. *Pneumonia.* On the pathology of this disease the only remarks worthy of record are those of Mr. Sibson, contained in the valuable paper above alluded to, and those of M. Prus. The essential and primary seat of the disease is stated by the former writer to be, the capillary branches of the pulmonary artery and vein, the coats of

which vessels become, through a "modification in their cell-life," soft and yielding. He agrees with Stokes in discriminating a stage prior to this, in which the minute crepitating bile is observed, and which is recognized by an increased and hissing vesicular respiration. M. Prus, in the memoir above alluded to, has examined the different theories upon the subject of the primary seat of pneumonia with great minuteness. After criticising the opinions of Laennec, Andral, Lobstein, Grisolle, and other French writers, he pronounces his adherence to the opinion which has been previously somewhat indefinitely stated by Lallemand, that pneumonia is essentially an inflammation of the intervesicular cellular tissue, and does not necessarily involve any lesion of the bronchial tubes or air-cells.

In the treatment of the suppurative stage of pneumonia the iodide of potassium is much praised by Dr. Upshur. We have frequently had occasion in practice to witness the advantages which the author attributes to this remedy, particularly in the pneumonia of infants, as it occurs during the progress of or immediately after measles.

§ IV.—*Diseases of the Circulating System.*

19. ***Diseases of the Heart.*** The contributions to the study of the diseases of the heart and great vessels during the preceding six months are principally those by Drs. Bellingham, Furnival, and Christison, and MM. Forget and Gendrin. The observations of Dr. Bellingham, which will be found at length in another part of this work, are valuable for the clearness with which the physical signs of valvular disease in particular are laid down. In common with the majority of auscultators, he considers regurgitant diseases of the mitral valve to be indicated by a "bruit" with the first sound, most distinct under the left nipple. In regard to this point we may be allowed to state, that it has long been our opinion, founded upon careful clinical observation, that disease of the mitral valves does not give rise to any bruit whatever, and that, in fact, we have no mean of diagnosing the lesion, excepting by reference to the pulse, which is in itself almost pathognomonic. In looking lately through a list of cases of mitral valve disease, we have been able, within certain limits, (not as extensive as might be wished, it must be allowed,) to gain a numerical confirmation of these views. Of 14 cases of mitral diseases, as ascertained by post-mortem examination, a bruit with the first sound existed in 8, and none in 6. This at first sight might appear to favour the common opinion; but we further find, that out of these 8 cases, another cause capable of regenerating the "bruit," namely, obstructive disease of the aortic valve existed in 6. On the other hand, in the 6 cases of patulous mitral valve in which no bruit was perceptible, neither was there, with one exception, any coexistent disease of the aortic orifice. The exception alluded to, it may also be observed, is not in reality one to which any value can be attached, for the aortic orifice was in that case reduced to a rigid narrow ring, a condition which is generally allowed to be incapable of generating a bruit. We

conclude, therefore, as far as so small a number of observations will warrant our coming to any deduction at all, that a patulous condition of the mitral valve does not give rise to a "bruit," but that the sound heard in such cases is due to a co-existing lesion of the aortic orifice.

Dr. Furnival's work is a careful resumé of the ordinarily received doctrines of the day, but adds little to our previous knowledge. He particularly insists upon the advantage of giving alkalies in the treatment of acute rheumatism, as a means of preventing cardiac complication. The formula preferred by him is:—Liq. potassæ ʒss; Vin. colchici ♏ xx; Infus. sennæ, or Aquæ menthæ ℥j three times a day. He likewise speaks highly of aconite as a sedative in heart disease, and considers it in all cases preferable to digitalis.

M. Forget considers that too much value is attached to valvular sounds in the diagnosis of diseases of the heart. He thinks that, in order to arrive at a correct diagnosis, it is necessary to determine the relative frequency of the lesions of the different orifices, and the relations of those lesions to hypertrophy and dilatation of the parietes. The results of the analysis of several hundred cases has shown him, that the most conclusive sign of a contracted aortic orifice, is dilatation, and generally also hypertrophy of the left ventricle. This is indicated by bulging in the præcordia, increased impulse, and bellows-sound along the track of the aorta. This state of the left ventricle implies also passive dilatation of the other three cavities, so that in disease of the aortic orifice the whole heart is enlarged, giving rise to increased dull space in the præcordial region. Contraction of the mitral orifice is followed by dilatation of the three cavities behind it, but the left ventricle remains undilated. In this case there is neither præcordial bulging, nor increased dulness on percussion.

The practical deductions drawn by the author from these views are:—that in aortic stricture, with hypertrophy and dilatation of the left ventricle, debilitants and sedatives may be used without fear; whereas, in cases of mitral stricture, these means must be used with caution, as the left ventricle not being thickened, requires all its energy.

20. *Pericarditis.* The occurrence of this disease as a complication of scarlatina, has already been mentioned (vide p. 3.) Mr. Sibson speaks of a mild form of pericardial inflammation, which he believes to occur some time or other in the life of almost every individual. He is induced to come to this conclusion from finding a small quantity of fluid, and a delicate fibrinous deposit on the auricular appendages in the majority of post-mortem examinations in persons dying of lingering disease of the chest, injuries, &c., which came under this notice.

21. *Aneurism.* The diagnosis of aneurisms of the aorta forms the subject of a comprehensive paper by M. Gendrin, for which we refer to a former part of this work, and is also briefly alluded to by Dr. Furnival.

A peculiar form of dissecting aneurism of the aorta has been described by Dr. M'Donnell, in which the blood had taken a double course, one downwards behind the sigmoid valves, which eventually

burst into the pericardium, the other upwards separating the arterial tunics as far as the innominata and subclavian vessels. The symptoms of this lesion are well shown in a similar case which is recorded by Dr. Todd in the 27th vol. of the *Medico-Chirurgical Transactions.* These appear, when the disease occurs suddenly, to be in the first place, a state of syncope, which is evidently due to the sudden abstraction of a large quantity of blood from the general circulation, and its impulsion into the new-formed channel. The tearing away of the cellular tissue connecting the coats of the artery before the column of blood, was in the above case announced by a severe anomalous pain in the course of the arterial trunk.

§ V.—*Chylopoietic System.*

22. *Liver, Cirrhosis.* Dr. Corrigan insists upon the necessity of paying attention to the early symptoms of this disease, as it is in the initiatory stage only that remedial measures can effect any permanent good. The affection is ushered in by repeated attacks resembling "cholic," which are apt to come on after meals, with pain at the top of the shoulder, vomiting, more or less jaundice, and occasionally slimy stools tinged with blood. In the treatment of this condition of things, nothing can be done without total abstinence from ardent spirits and other stimulating liquors, which the patient is prone to indulge in, under the impression that they will relieve the colicy pains by which he is harassed. In addition to this, Dr. Corrigan advises cupping or leeching over the hypochondrium, and the exhibition of mercury until gentle ptyalism is established. When this has been maintained for two or three weeks, we may have recourse with great advantage to this trisnitrate of bismuth.

23. The causes and treatment of *biliary calculi* are thus stated by MM. Duparcque and Dufresne. The causes are the phlegmatic constitution, sedentary habits, too animalized a diet, and the prolonged sojourn of the bile in the gall-bladder. The treatment according to the authors, is to be conducted upon three principles: 1st. To dissolve the concretions: 2d. To facilitate their expulsion; and 3d. To induce such a modification in nutrition as shall prevent their recurrence. In order to fulfil the first indication, alkalies, and especially Vichy water, are the author's favourite remedies. The second indication is attempted by the exhibition of a mixture of two parts of spirit of turpentine and three of ether; or by one of castor oil of sixty parts, ether four parts, and sugar thirty parts, the dose being a teaspoonful every hour. The two remedies which are so much depended upon in this country, namely, opium and the warm bath, are not alluded to. The method of carrying out the third principle of treatment is determined by the manner in which the gall-stones are formed. This, in the belief of the authors, is by the conversion of the fatty matters, and they accordingly recommend abstinence from food rich in oleaginous principles, combined with purgatives, vegetable diet and exercise.

24. That condition of the liver which is familiar to us under the name of *nutmeg liver*, has recently been submitted to microscopical investigation by Vogel. The researches of this observer confirm the ordinary opinion that the appearance is caused by irregular congestion of the organ, and shows that it depends directly upon the contrast exhibited between the pale substance of the hepatic lobules, and the intensely reddened interlobular tissue.

25. A case is described by Dr. Frey under the denomination of inflammation of the vena porta, in which the symptoms were those of phlebitis in general, with the exception that delirium did not occur until the agony of death. This circumstance is accounted for by the author, upon the supposition that the pus did not gain access to the general circulation, being stopped in the portal capillary vessels. The case was fatal, and after death pus was found in the mesenteric, splenic, and in the veins in general which contribute to form the portal circulation.

26. *Abdominal Pulsation.* This is a symptom of very frequent occurrence in practice, and as it is one which never fails to awaken feelings of alarm in the mind of the patient, it will be advantageous to have a clear recollection of the various circumstances under which it may arise. These are well described in an article by Dr. Nottingham, to which the reader is referred. As far as our own experience goes, it is nine times out of ten an unimportant symptom, and is readily subdued by the nitrate of silver in $\frac{1}{4}$ grain doses, or by the bicarbonate of potash and hydrocyanic acid. The theory of the production of the pulsation is not in all cases very evident, but in those cases in which it is complained of by the patient without being perceptible to the medical attendant, it is probably due to an exalted state of nervous sensibility of the stomach, whereby the pulsations of the subjacent aorta, ordinarily unnoticed, become more or less plainly perceived.

27. *Stomach. Perforating ulcer.* A case of this lesion is reported by Dr. Barlow, which is chiefly worthy of mention in consequence of having given rise to a peculiar condition of parts calculated to throw great obscurity over some of the phenomena of auscultation which are in general the least liable to misconception. The contents of the stomach being extravasated through a circular ulcer, instead of giving rise to a general peritonitis, excited only a circumscribed inflammation, so that a large cyst or abscess was formed communicating freely with the stomach. The contractions of the diaphragm in this case causing the passage of air from the stomach to the adventitious cavity, and vice versâ, gave rise to many of the symptoms of pneumothorax with pulmonary fistula, such as amphoric resonance, metallic tinkling, &c., so that during life the pleural sac was considered to be the part chiefly involved. The case is well reported, and together with the remarks of Dr. Barlow is deserving of attentive perusal.

28. *Intestinal obstruction.* There are few circumstances in which the diagnostic acumen of the physician is more frequently put to the test, than in the discrimination of the exact site of disease in cases of

internal obstruction of the bowels. This difficulty may be in some cases materially diminished by the application of certain observations lately published by Dr. Barlow. This author has noticed that a difference is to be found in respect to the urinary secretion, according to the seat of the obstruction. When this is situated in the lower part of the intestinal tube, the renal secretion is little, if at all affected; but when it is higher up, near the duodenum, the secretion has been observed to be more or less completely suppressed. The explanation of this phenomenon is to be found in the fact, that if the obstruction be high up, a small quantity only, or no fluid at all can gain access to the intestines; and absorption is consequently in the same proportion prevented. If the fact be one of general occurrence, Dr. Barlow will have rendered material service to the department of diagnostics, by his notice of it.

The large intestine has several times of late been opened in the lumbar region, as a remedy for insurmountable obstipation. The latest case on record is one by Mr. Evans, of Derby, making the eleventh in which Callisen's operation, as modified by Amussat, has been performed in the adult. This patient recovered from the immediate effect of the operation, but died in consequence of subsequent imprudence.

29. ***Dysentery.*** A severe form of epidemic dysentery has lately been observed in a union house near Tunbridge Wells, in which the mortality has been as high as one case in four. All methods of treatment appeared to be unsuccessful, until it occurred to Dr. Wilmot to exhibit creosote enemata in the strength of ℥j to ℥xij of starch. Under this plan a rapid amelioration took place.

30. ***Peritoneum.*** Dr. Spittal mentions a phenomenon attending peritoneal inflammation, which although known as far back as the time of Laennec, has not much attracted the attention of succeeding pathologists. This is a friction sound, analogous to those produced in the pleura and pericardium, and, as in those membranes, depending upon the contact of inflamed serous surfaces. The mechanism by which the peritoneal friction sound is produced is threefold: 1, The respiratory movements and descent of the diaphragm; 2, Pressure on the abdominal parietes by the hand; and 3, The peristaltic action of the intestinal canal. The subject is worthy of deeper investigation than has hitherto been accorded to it, as it is likely to prove a valuable auxiliary source of diagnosis, not only in peritoneal inflammation, but in cases of abdominal tumour.

§ VI.—*Genito-urinary System.*

31. In this branch of pathological study we have to notice the recently published and excellent work of Dr. Golding Bird, the object of which is to supply, in their simplest form, the rules for the discrimination and treatment of the various forms of urinary deposits. As we have, in a former part of this work given an abstract of many of the principal matters contained in the work, we shall merely take a passing survey of its contents in the present place, directing the at-

tention of our readers more especially to the treatment. In the remarks upon the management of the deposits of uric acid and its compounds, we do not find much to arrest our attention, the rules there laid down being, for the most part, such as have long been familiar to the profession. The author, however, introduces one or two observations, which are deserving of further publicity. One of these is in reference to the common practice of exhibiting soda as an antacid. On this subject he cautions us that in many constitutions the continual use of alkaline carbonates is productive of much disorder, and refers to the opinion of Prout, that it occasionally induces the formation of the oxalic diathesis. The other observation to which we allude is with regard to the use of the biborate of soda, which Dr. Bird states cannot be given to females with impunity, as it has been known in two instances to induce abortion.

The most valuable portion of the work is undoubtedly that which treats of the oxalic diathesis; for we have in the chapter devoted to the subject a developement of that particular pathological state such as had not previously been accomplished. This diathesis appears from the investigation of Dr. Bird to be far more common than is supposed, and gives rise to a train of symptoms, which may readily be mistaken for hypochondriasis or spermatorrhœa, with which latter malady it is often associated. Dr. Bird demonstrates, as it appears to us, very satisfactorily, the non-dependence of this diathesis upon the presence of sugar in the system; for neither on the one hand has he found oxalate of lime deposits in diabetic urine, nor sugar on the other in that which contains the oxalate of lime. The origin of the salt he considers to be by the conversion into oxalic acid, by the vital chemistry of the kidney, either of urea, or of the elements which in a state of health would have produced that substance. In the treatment of this state of system, the author speaks very favourably of colchicum: but the principal indications are those of strengthening the digestive powers, and to induce a healthy action of the skin, which are readily accomplished by the mineral acids, the sulphates of zinc and iron, and the shower-bath.

32. *Albuminuria.* The most important notice which this disease has received during the preceding six months is to be found in the admirable clinical lectures of Dr. Corrigan, who considers the pathological condition of the kidney to be analogous to that which is known as it occurs in the liver, by the term *cirrhosis.* The first stage of the disease consists in a state of hypertrophy, caused by the deposit of lymph, not as has been supposed, in the tubular structure of the kidney, but in the intervening cellular tissue; the second stage, as in the liver. is marked by contraction. These two conditions, according to Dr. Corrigan, are widely different as to curability: the latter is perfectly irremediable; the former may be removed by judicious treatment. The symptoms are also, he observed, sufficiently distinctive to enable us to recognize the two stages. In the hypertrophied kidney "the urine is abundant, sometimes tinged with blood, albuminous, specific gravity but little altered, with dry skin and pains in

the loins. If in addition to this the specific gravity is low, 1.010, and albumen is still present, there is little doubt that contraction has set in, and the prognosis is correspondingly unfavourable.

M. Fourcault, in a work recently published upon the causes of chronic diseases in general, gives the following rationale of the occurrence of albuminuria. He had long observed that the presence of albumen in the urine, in by far the majority of cases, coincided with notable derangement of the functions of the skin. Struck with this circumstance, he had recourse to experiment to determine whether the two events had any necessary connection. The result was, that in artificially suppressing the cutaneous transpiration, he induced albuminous urine. The explanation of the fact is founded upon the hypothesis that the albumen of the blood is retained in a fluid condition by a chemical union with soda, which alkali is neutralized by the lactic acid retained in the circulation in consequence of its non-elimination by the skin. The albumen thus isolated is rendered as it were an effete element, and is therefore, discharged by the kidney as the most active emunctory of the body. The feasibility of this theory is, according to the author, supported by further experiments, in which he injected lactic acid into the veins of different animals, with the constant effect of causing the appearance of albumen in the urine. These observations, which are for the most part in accordance with the views of Mr. Ross upon the same subject, are deserving of close attention; for they, if true, entirely subvert the opinion of the illustrious physician whose name has by common consent been accorded to the disease for the elucidation of which he has done so much. In fact, if the skin have in reality so great an influence upon the appearance of albumen in the urine, we must undoubtedly cease as hitherto to regard the congestive or inflammatory lesion of the kidney as of primary consequence in the causation of the disease. We, however, look upon this branch of pathological inquiry as far from being satisfactorily determined. We know thus much, that there exists a train of symptoms indicating a generally fatal combination of pathological conditions, but of the three main elements of the disease in question —the presence of albumen in the urine, the appearance of dropsical effusions, and the concomitant lesions of the kidney: we are not able, as it appears to us, as yet to determine the respective place in the series of morbid actions.

The treatment of albuminuria will be found to be well described by Dr. Williams. In the early stage of the disease in which there is usually more or less pain in the back and loins, local abstraction of blood by cupping will be found of material benefit. The dropsical symptoms may be attacked by hydragogue catharies, diaphoretics, &c. Diuretics are, according to Dr. Williams, unsafe until the renal congestion has been in a measure removed. In the chronic form of the disease, Rayer recommends small doses of tincture of cantharides, and Mr. Kidd, the establishment of an issue in the loins. We regret that we do not find more specific notice of the treatment of some of the more urgent symptoms attendant upon that fatal malady ; as, for

instance, of the vomiting which in many cases forms so insurmountable an obstacle to the administration of medicines, and by the rejection of all food tends mainly to the fatal determination. On the subject of treatment of albuminuria as it occurs after the eruptive diseases, we have already had occasion to remark in a former part of this Report.

§ VII.—*Diseases of Uncertain Seat.*

33. *Scrofula.* The most recent, and at the same time the most important communications with respect to this common source of the deterioration of the human species, are to be found in the late work by M. Lugol, of which we have had the honour of producing an English translation. The object of this work is strictly confined to the investigation of the causes of the disease, the author having, as he conceives, sufficiently exhibited his method of treatment in former publications. The main peculiarity in the author's views consists in the great development which he has given to hereditary influences in the causation of the disease, and the small share which he believes external agents to posses, when hereditary taint is not also present. No combination of circumstances in fact can, according to him, make a healthy man scrofulous. These views are unquestionably startling, from the implicit faith with which we have been accustomed to receive the doctrine of the influence of impure air, and bad food, in the production of scrofula; and it is to be regretted assuredly that the author had not followed the philosophical Louis in the mode in which he has related the results of his investigation. Now, although it is not our intention to defend M. Lugol from the accusation of inexactitude with which many of his dicta have been received, we must be allowed to suggest that assertions coming from the lip of a man who, like Lugol, writes a book not to get a name, but at the end of a thirty years' experience, and on the point of retiring from the profession, might be received with a less amount of the support afforded by figures than under other circumstances we should require. The author, among other points, in which he differs from preconceived opinions, states as his experience, that scrofula is most frequently shown in persons with dark hair and complexion. "Scrofula," he observes, "rarely shows itself in persons of light hair and complexion; more than half are dark, and among the remainder the hair is generally of various shades of auburn." As far as our own observations have gone, and we have, since our attention has been so directed, made many inquiries in reference to this particular point, they coincide with those of M. Lugol.

The circumstances under which scrofula may be inherited are, as M. Lugol observes, more numerous than is commonly known. Not only may an individual actually labouring under scrofula at the time of begetting offspring, transmit to them his cachetic constitution, but he may do so if he at any time has been scrofulous, even although he should be apparently cured. It appears, also, that even if he have not exhibited signs of scrofula in his own person, his children are

nevertheless not exempt, if his brothers or sisters suffer from the disease; for M. Lugol regards it as an axiom, that if one member of a family be scrofulous, the others are so also in a greater or less degree. Phthisical parents may beget scrofulous children; as may also those who are labouring under secondary syphilis; those who marry too early or too late; who are disproportioned in age, or in the physical vigour of the sex; or who have committed venereal excesses. Lastly, scrofula may be inherited from maniacal, epileptic, and paralytic parents. In point of fact, any circumstance which gives rise to debility in the reproductive system in the parent, may become a source of scrofula in the child.

Our space will not allow of a minute analysis of M. Lugol's important work; we shall therefore pass on to a subject which is nearly allied to scrofula, namely:—

34. *Cretinism.* The pathological history of the degenerate races inhabiting the humid valleys of the Alps, has lately been extended by the labours both of British and continental writers; among which, we shall mention those contained in an interesting brochure by Dr. Wells. The first part of this work is occupied by a physiological discussion upon the origin of the term *cretin*, and by an account of the authors who have written upon the subject. He then proceeds to the description of a cretin, and to the consideration of the proximate cause of the degeneration. It appears, according to Dr. Wells, that cretinism is not hereditary, but that it shows itself usually for the first time about the period of dentition. In this view, however, he is not at variance with Dr. Rosch, who has likewise minutely investigated the disease. The proximate cause is stated to be "an imperfect developement of the individual, dependent upon the condition of the blood, which is deficient both in quantity and quality." The author combats the opinion that cretinism and goitre arise from any peculiarity in the Alpine waters, but agrees with Dr. Rosch, in attributing the condition entirely to the injurious operation of the warm damp atmosphere which stagnates at the bottom of the Alpine valleys. The subject has also been noticed in a paper published in the *Transactions of the Vienna Medical Association*, by Dr Knolz, and in a work by Dr. Troxter.

35. *Rheumatism.* M. Legroux has for some time abandoned bleeding in the treatment of acute rheumatism, and has relied entirely upon the sulphate of quinine. The effects of this medicine are stated by him to be threefold: 1, primary or local; 2, physiological or secondary; 3, therapeutic. The latter only need here occupy our attention. The action of the circulating system seems especially modified by the medicine, the heart's pulsations diminishing rapidly both in force and frequency. The skin at the same time cools down to its natural temperature. The articular affections do not undergo any notable amendment before the third or fourth day, but after that day they rapidly progress towards recovery. The following is a statistical statement of M. Legroux's experience:—Of 24 cases, some had been ill two or three days, others for six or seven, some as long as a month;

the mean duration of the illness at the commencement of the treatment was ten days. The duration of the treatment in the successful cases, was 3 days in two, 4 days in six, 6 days in four, from 8 to 9 in four, from 12 to fifteen in two; the mean duration, therefore, was 6 days. Of the twenty-four patients, nineteen were completely cured; in fact, this change from disease to health was almost sudden; there appeared to be no intermediate state of convalescence. The other five had a relapse, but were eventually cured by the same means.

Of these 24 cases there was heart complication in 7; but this did not appear to be influenced in any manner by the quinine.

The preceding facts and considerations lead M. Legroux to the following conclusions:—

1. The sulphate of quinine is a powerful sedative of the circulation.
2. It exercises a powerful influence over the duration and progress of articular rheumatism; it diminishes the symptoms; and probably tends more than any other medicine to prevent the intercurrence of cardiac disease.
3. Given in small and divided doses, it is free from all danger and inconvenience.
4. It often succeeds alone; but it is often useful to associate with it one or two bleedings.

36. *Diabetes.* Dr. Watts has reiterated his opinion, that the proximate cause of this disease is to be sought in the assimilating organs, and that the kidneys are not essentially implicated in the disease, merely acting as emunctories for the sugar, with which, by a vice in the digestive organs, the blood is surcharged. He shows, on the authority of Liebig, that certain articles, such as sugar, starch, gum, &c., in a healthy stomach, are converted into oleaginous secondary principles, which, like the saccharine, are destitute of nitrogen. A further change is then effected by their being converted into animalized, that is, azotized principles, such as are necessary for the constitution of the various tissues of the body. It, however, happens, under certain forms of disease, that digestion is interrupted in one or other of these stages of assimilation, and effects are produced, which vary according to the particular stage at which the suspension of assimilation takes place. In the case of non-nitrogenized principles, if the assimilation has ceased after the conversion of the saccharine into the oleaginous principles, this imperfectly assimilated aliment is, according to Dr. Watts, deposited in the form of fat. Hence, with him, the production of great obesity is one of the precursors of diabetes. If, however, the digestion has not proceeded further than the conversion of the amylaceous matters into the saccharine principle, this remains as an effete matter, and is eliminated by the kidneys and in the alvine discharges. The peculiarity of the views of Dr. Watts, then, consists in his regarding diabetes as made up of three stages: the first, which is essential, and consists in inflammatory gastric dyspepsia, as a consequence of which, the conversion of the non-azotized into the azotized principle is incomplete; the second, which is not essential, and is therefore occasionally absent, in which, from the mal-assimila-

tion of the oleaginous principles, these are deposited in the form of fat; and thirdly, that which is generally recognized as diabetes, in which the digestive process gives rise to a low form of sugar, but is incapable of accomplishing its further assimilation. This supposed connexion of obesity with subsequent appearance of diabetic symptoms, is worthy of further investigation, but we are not aware that it has been insisted upon by any other writer.

In the treatment of diabetes we refer with gratification to a paper by Dr. Imray, in which the influence of warm climates upon the disease is shown to be of paramount importance. A subsequent article likewise contains the report of a case supposed to have been cured by the Peruvian balsam.

37. *Action of Medicine. Narcotics.* Dr. Pickford, of Heidelberg, has made the modus operandi of narcotic medicines the subject of a valuable inaugural dissertation. His conclusions may be thus briefly recapitulated:—

1. A narcotic becomes active only when it enters the circulation.
2. It enters the circulation through the medium of the veins, and not by the lymphatics.
3. Since it is impossible to detect the narcotic either in the blood, or in any component part of the body, it must be allowed to have a special effect upon the nervous mass, the blood being simply the vehicle of the poison.
4. The action of a narcotic differs sensibly, accordingly as it acts directly upon the nervous centres, or only upon a particular nerve.
5. A powerful dose of narcotic poison destroys life by a direct action upon the nervous centres; in smaller doses it kills by its action upon certain nerves, as those of the heart.
6. The nearer the nervous centres that a narcotic poison enters the circulation, the more rapid the death.

Diuretics. In the explanation of the modus operandi of diuretics, Dr. Bird alludes to the two following laws:—1st. That substance intended to reach the kidneys must either be in solution, or be readily soluble in the fluids contained in the stomach. 2d. That the solution of these substances must be so diluted as to be of considerable less specific gravity than the liquor sanguinous or serum, i. e. less than 1.028. This strikes us as an important law, and one which is not sufficiently attended to in extemporaneous prescriptions. It readily explains why two drachms of the acetate of potash in a given quantity of water will excite diuresis, while half an ounce in the same quantity will purge. The author has made some remarks upon the laws which are specially worthy of recollection. After alluding to the course which diuretic medicines must take before they reach the kidneys, viz., through the liver and ascending cava to the heart, and thence through the lungs back to the heart, and through the aorta, he observes that when an obstruction exists in any part of this course, a diminished supply of water reaches the kidney. For example, a patient labours under a contracted condition of one of the auriculo-ventricular openings, and dropsical effusions ensue, or he has a contracted liver, and the portal

system is consequently obstructed. In cases of this kind no good can arise from goading the kidneys by diuretics, unless the obstruction can first be remedied. This is a point not sufficiently reflected upon in practice, or we should not see stimulating diuretics, as cantharides and squills, so promiscuously given in dropsy, without reference to the condition of the heart and liver. Dr. Bird concludes with these practical suggestions:—

1. Whenever it is desirable to impregnate the urine with a salt, or to excite diuresis by a saline combination, it must be exhibited in solution so diluted as to contain less than five per cent. of the remedy, or not more than 25 grains in an ordinary draught. The absorption of the medicine may be insured by a copious draught of water or other diluent, immediately after each dose.

2. When the urine contains purpurine, or other evidence of portal obstruction exists, the diuretics employed should be preceded or accompanied by mild mercurials, taraxacum or other cholitic remedies.

3. In cases of valvular disease of the heart, it is next to useless to endeavour to excite diuretic action by remedies intended to be excreted by the kidneys. The best diuretics will be found in whatever tends to diminish the congested state of the vascular system, and to moderate the action of the heart; as digitalis, colchicum, and other sedatives, with mild mercurials.

38. *New Remedies.* Some few new medicines have lately been introduced to the profession which we shall briefly notice. The principal of these are the arseniate and the valerianate of quinine and bebeerine.

The *Arseniate of quinine* has been introduced by M. Bourrieres, and is intended by him to be a substitute for arsenious acid, in cases in which that poison is exhibited as an anti-periodic.

The *Valerianate of quinine* has been tested by M. Devay at the Hôtel-Dieu. Its virtues, as ascertained by him, are said to be considerable in those cases in which a combined sedative and tonic effect is required. It is, therefore, serviceable in low forms of fever with nervous excitability; in intermittents of bad character, and in neuralgic and hysteric complaints.

Bebeerine is a name applied to a salt extracted from the *Noctandra Rodiei*, nat. or. Lauraceæ, which has been found by Dr. Legan to possess anti-periodic properties of a high order, and is stated by him to be only half the expense of quinine. He records the experience of Dr. Watt of Demerara, and Dr. Nicolson of Madras, both of whom have exhibited it in intermittent fever and neuralgic diseases of various intensities, and who concur in the statement that it is certainly free from those unpleasant consequences, as headache, deafness, &c., which occasionally supervene upon the use of quinine.—***Half-Yearly Abstract of the Medical Sciences.***

Sulphate of Quinine not absorbed when applied Endermically. By M. Martin-Solon.—Many medicines, when applied to the skin either whole or deprived of its cuticle, act energetically on the economy, and may be detected in the secretions, thus showing they have been absorbed. Sulphate of quinine, when given internally in the dose of one grain, may easily be detected in the urine by means of the ordinary tests, as iodide of potassium, &c. Martin-Solon, however, has made many experiments on twenty individuals affected with various maladies, relative to this medicine being absorbed when applied to the skin, and in no case has he succeeded in detecting the slightest traces of the medicine in the urine. The sulphate of quinine was applied by friction to the sound skin, and to that denuded of cuticle, in baths and by means of ointments. The effect was null in all.—*Ed. Med. and Surg. Jour., from Bul. de Ther.*

Case of Monstrosity. By M. Nicolas.—M. Nicolas presented to the Academy of Medicine the body of a new-born infant, in which the bones of the upper portion of the cranium were wanting. A considerable portion of the brain escaped during its delivery, yet the child lived an hour, and uttered strong cries.—*Ibid, from Bul. de l'Acad. Roy. de Med.*

Sudden Death from Spontaneous Rupture of the Stomach. By Sig. Morici.—A man, 30 years of age, who had been several times cured of intermittent fever, was seized again with the same disease on the 21st of January. Quinine and other remedies produced a cure in ten days. A bitter decoction, however, was continued for five days longer, during which he had no fever, when on the fifth day he was suddenly seized with violent pain in the lumbar region. There was, however, no fever, no swelling, redness or abnormal heat, nor hardness at the seat of the pain. The pain was aggravated on pressure, and the patient continually sat erect in bed, as it was impossible for him to lie on his back or side. Next day feverish symptoms made their appearance, accompanied with retraction of the right testicle, difficulty of making water, and a sensation of constriction in the sphincter of the anus. By the third day the fever had abated, and he was even able to take a little soup. In the evening he rose to go to the water closet, and in returning to his bed fell down dead.

The thoracic viscera were found healthy, as were also the abdominal, with the exception of the stomach, which was ruptured on its anterior surface, almost in its very centre. The aperture was about three fingers' breadth in length, and had allowed the contents to escape among the abdominal viscera. Although the margins of the aperture preserved their natural texture, they were slightly hypertrophied and dotted with redness. The same dotted redness was remarked on the mucous membrane of the stomach a short distance around the rupture, but the membrane retained its natural texture, and had undergone no pathological changes.

Sig. Morici could not account for the production of the rupture, unless it were the straining at stool acting on a part of the stomach, weakened by circumscribed inflammatory action of the mucous membrane, as indicated after death by the dotted redness. In this, as in all other recorded cases where the stomach has been found ruptured, the death was sudden, and was not attended with hæmorrhage, or rupture of any arteries or veins of importance.—*Ibid, from An. Univ. di Med.*

Recovery from Wound of the Head, with loss of substance of the Brain. By M. Rouelle.—An individual was struck over the head, in a quarrel, with a heavy baton, and instantly fell. M. Rouelle, who saw him within a quarter of an hour after the accident, recognised a comminuted fracture on the superior part of the skull. A portion of the cerebral substance, about the size of an apricot stone, had escaped through a wound situated over the union between the frontal and right parietal bone. At this time the person did not present any symptoms of intellectual lesion; he answered readily and collectedly to questions addressed to him relative to the seat of the pain, &c. The whole left side of the body, however, was paralyzed; the mouth, however, was not drawn to one side. Notwithstanding the gravity of the accident, and the occasional severe symptoms which occurred during the course of the treatment, a cure was effected. By the end of six months the patient had quite recovered the use of the leg; the arm, however, still remained paralyzed.—*Ibid, from Comp. Ren. des Sean. de l'Acad. Roy. des Sciences.*

On the Causes of Plague. By M. Hamont.—M. Hamont terminated his long memoir on the plague, the reading of which occupied more than one meeting. From the numerous facts which he brings forward, he concludes that plague owes its origin to a reunion of many different causes of insalubrity in the houses of the fellahs or peasants in Egypt, aided by heat, humidity, the unwholesome south wind, &c. He consequently concludes that plague is in a great measure the work of man, and not the result of an assumed epidemic or endemic constitution of the atmosphere. As experience, however, has proved that plague once originated may be propagated from man to man by contagion, or through means of goods, M. Hamont concludes, that lazarettoes are necessary in a sanitary point of view. He thinks, however, that the system of quarantine may be advantageously modified,—as, for instance, that vessels with clean bills of health should not be subjected to a longer quarantine than fifteen days, counting the days they have been on the voyage from the suspected port.—*Ibid, from Bul. de l'Acad. Roy. de Med.*

Escape of a Tænia solium through the Umbilicus. By M. Siebold.—In April, 1841, a man, 22 years of age, was received into the hospital, labouring under scrofulous abscesses in various parts of the

body. A little above the umbilicus there existed a considerable deposit of softened scrofulous matter, and a small abscess, which opened immediately over the umbilicus, gave it the appearance of that of a new-born child. One day something was felt moving within this abscess over the umbilicus, and was found to consist of a loop of the intestinal worm, the *Tænia solium*. This loop appeared to be endowed with life, was white, but no trace of chylous or excrementitial matter was observed. On pulling out this loop one extremity was discovered to become more slender, as if near the head, and on pulling at this end the entire head of the worm was drawn out. The tail portion was afterwards extracted with ease by means of gentle traction. The worm was several yards long, and when put into lukewarm water, moved about and appeared quite healthy. No gas or feculent matter escaped from the aperture through which it escaped, nothing, in fact, which could make it be supposed that the animal had come through an intestinal perforation. No bad symptoms followed this escape of the tænia. The probe could not detect any communication with the intestine, on account of the acute pain which such exploration caused. The patient died about a year afterwards, but leave to open the body could not be procured.—*Ibid, from Arch. Gen. de Med.*

Experiments on the Mass of Blood relative to the Weight of the Body. By M. Wanner.—As it was impossible to ascertain in man the important fact of the weight of the blood to that of the body, M. Wanner made several experiments on the lower animals. The animals were first carefully weighed, and then bled to death by the butchers and the blood weighed.

A bullock, weighing 1659 lbs. Imperial, yielded 69 lbs. of blood. The proportion was therefore as 1 to 23·81, or rather more than 4 per cent. of blood.

Another bullock, weighing 1640 lbs., yielded 65 lbs. of blood. The proportion was therefore almost the same as the first, 1 in 23·73.

A cow, weighing 1293 Imperial lbs., yielded 59 lbs. of blood. The proportion was therefore 1 in 21·77, or nearly 5 per cent. of blood.

A sheep, weighing 110 lbs., yielded 5½ lbs. of blood, or in the proportion of 1 to 22·72, or about 4½ per cent. of blood.

Another sheep, weighing 88 lbs., yielded 4·4 lbs. of blood, or in the proportion of 1 in 20, just 5 per cent. of blood.

In a rabbit the proportion of blood was as 1 to 25 exactly.

As it may be safely inferred that man follows the same laws in this respect as the lower animals, it may be deduced that a person weighing 100 lbs. has 5 lbs. of blood in his body,—a person weighing 200 lbs. nearly 10 lbs. of blood, and so on. The practical conclusion which the author deduces from this fact is, that a blood-letting to the extent of two cups from a woman weighing 100 lbs. is as much as one of four cups from a man weighing 200 lbs. The blood-let-

ting ought, therefore, in every case to be proportioned to the weight of the individual. Thus, if 2 lbs. of blood were drawn from an individual 100 lbs. in weight, it would abstract nearly one-half of the blood from the body. Nine leeches, each abstracting half an ounce, would draw half of the blood from a child 5 years of age, whose average weight is about 30 lbs., and as 4 or 5 ounces is all the available blood in a child at birth, this fact should make us cautious in allowing blood to escape from the chord in cases of apoplexy, &c.

It is remarked by M. Guerin that these experiments merely relate to the available blood in the body, and though true in a physiological and practical, are not so in a pathological sense.—*Ed. Med. and Surg. Journ., from Gazette de Medicale.*

Experiments on the Blood. By M. Dupuy.—The following experiments show how very rapidly the blood alters in its qualities, and M. Dupuy thinks they tend to throw light on the development of malignant carbuncle, plague, &c.

A few ounces of arterial blood were drawn from the carotid artery of a horse, and found to contain twenty-one grains of moist fibrin per ounce. The pneumogastric nerves were then included in a ligature, and in a few minutes afterwards a few more ounces of blood were drawn from the same artery. It was found to have assumed a black colour, like venous blood, and to contain much less fibrin.

The same experiment was performed on another horse, with this difference, that the ligature was only so far tightened as to compress the nerve without destroying its texture. The arterial blood was black like venous blood, a few seconds after the nerve was compressed; but almost immediately assumed its bright arterial hue when the ligature was relaxed. This curious experiment was frequently repeated on the same animal in the presence of MM Thouret, Halle, and Dupuytren.

Another horse, one ounce of whose arterial blood yielded twenty-one grains of moist fibrin, had tracheotomy performed, and then the pneumogastric nerves cut across. On the sixth day thereafter, an ounce of its arterial blood yielded only seven grains of moist fibrin. It died on that day. The cut ends of the nerves were found on the third day to be inflamed and swollen, and to exhale a very fetid odour. On the fourth and fifth days the respiration was difficult, and the animal presented the same morbid phenomena as those which attend carbuncle or malignant pustule. A portion of the spleen of this animal was placed as a seton under the skin of a vigorous horse. Painful œdematous swelling soon manifested itself, and rapidly extended; great difficulty of respiration came on, and the animal died on the fifth day with symptoms of asphyxia. The nerves of the eighth pair were found ecchymosed and altered in structure, and the whole symptoms presented a striking analogy with those described by Chaussier as characterising the malignant pustule.

During a series of experiments on injecting various fluids into the

veins, it was found that a solution of the healthy cerebral matter of a cow or sheep, suspended in water and injected into the veins of a horse, killed it as instantaneously as a solution of corrosive sublimate, and the morbid appearances were the same.—*Ibid., from Bulletin de l'Academie Royale de Medicine.*

Case of Ulcerated Stomach, Causing Death by being Suddenly Detached from its Adhesion to the Peritoneal Lining of the Abdomen. By William Collins, Esq., Surgeon, Kenton.—I was requested by a friend to open the body of a female relative, who had died suddenly under circumstances which he could not satisfactorily account for, and I extract from my case-book the following particulars which he gave me, and the result of the autopsy.

E. W., aged 21, a very fine young woman, inclined to be corpulent, with a florid complexion, robust, and of active habits, had occasionally complained of rather acute pain in the left hypochondrium, after taking a full meal, but as it never lasted an hour at a time, and as her digestion was good, nothing was prescribed for her but some aperient pills. Being corpulent she was accustomed to have her stays laced very tight, and used to wear also a broad band round her waist, which was always made excessively tight, and it was thought the pressure might have occasioned the pain. One morning, after having used great exertion dancing all night at a ball, she eat a hearty breakfast, and quickly after walked out with some young friends. Suddenly she was seized with very severe pain in her left side, from which she said there was something tearing away; she shrieked violently, became faint, and fell down in the street; she was immediately removed to the house of her relative, which she had just left, efficient medical aid was instantly obtained, but after suffering intense agony she expired.

Twelve hours after death I opened the abdominal cavity, there did not appear to be any omentum, but merely a ragged sort of fringe along the greater curvature of the stomach; there was no appearance of inflammation on the outer coat of the stomach or intestines; but on that portion of the lesser curvature of the stomach anteriorly, which in the erect position of the body would have been in contact with the abdominal parietes on the left side, there was a considerable deposit of coagulable lymph, and a perforation through the coat of the stomach from internal ulceration, there being also a corresponding deposit of lymph on the membranous lining of the abdominal cavity, to which it was apparent the stomach had adhered, and it was opposite this spot she had always complained of pain. The stomach was very large, and contained a good deal of undigested food, but the fluid parts had escaped into the cavity of the abdomen. All the other abdominal viscera were perfectly sound.

The stomach was produced for inspection.—*Prov. Med. Jour.*

Case of Placenta Prævia. By J. C. Parker, Surgeon to the Bridgwater Infirmary, &c.—The great importance of establishing a proper rule of practice in these important cases—placenta prævia—is so evident, that no apology is necessary for offering the following case to your readers:—

I was sent for a few years since, to visit a Mrs. Morris, of Westonzoyland, near Bridgwater, by a surgeon who was in attendance on her in her confinement for her second child. On my arrival I learnt that she had been suffering from hæmorrhage about a fortnight previous, which, after continuing a short time, had suddenly ceased, that it had again occurred about four hours before my arrival, and had ceased after continuing about an hour, accompanied by active labour pains.

On making an examination, to my astonishment I found the placenta lying on the bed, completely expelled from the vagina, and about two inches of the umbilical cord also protruded with it; the arm of a full-grown fœtus was also presenting and protruding from the vagina as far as it could. There was not the slightest hæmorrhage; there were regular pains at short intervals; the patient complained of feeling faint and weak; she had a small quick pulse. After giving her a full opiate, in a little warm brandy and water, I slowly and cautiously introduced my hand, got one foot, and with little comparative difficulty turned; the delivery was soon effected, there was not the slightest hæmorrhage, and the patient recovered without one unfavourable symptom.

Here it appears to me nature effected that which, in cases of placenta prævia, art should imitate, and after the many important cases published in your Journal, and the able investigations conducted by Drs. Radford and Simpson on this subject, the best rule of practice appears established.—*Prov. Med. and Surg. Journal.*

Subcutaneous Puncture.—M. Blandin often employs the subcutaneous method of M. Guérin, in opening scrofulous abscesses and abscesses from congestion—a process which consists, as is already known, in making a puncture at the base of a fold of the skin, at some distance from the abscess, with a flattened trocar, and in withdrawing the pus by means of a *sèringue à aspiration*, adapted to the canula of the trocar. The following is the last case which occurred in M. Blandin's practice:—The disease was an encysted scrofulous abscess in the armpit. The abscess was entirely emptied, and the usual dressing for subcutaneous wounds was afterwards applied. The next and the following days affairs went on as they usually do in such a case—that is to say, without the occurrence of any annoying symptom; the little wound made by the puncture immediately reunited, the tumour had disappeared, and the patient did not complain of the slightest pain. After the lapse of a fortnight the abscess reappeared, but was of less size than before the operation. It was evacuated again in the same manner, and with the same results. Some time afterwards the abscess recurred, and was punctured for the third

time, with an equal immunity from annoying symptoms, but was followed this time with complete efficacy—that is to say, that, after the third evacuation, the tumour totally disappeared, the cyst collapsed, and was not reproduced. In order to favour its resolution, mercurial frictions were practised after each operation. M. Blandin considers this plan of exceeding utility in those cases in which it is capable of application; and also that it is applicable in all cases of scrofulous abscesses.—*London Medical Times, from Gazette des Hôpitaux.*

Embalmment by Injection.—Dr. Broc, aided by Dr. Pouzin, embalmed Marshal d'Erlon, by means of injection through the carotid artery. Five hundred grammes of corrosive sublimate were dissolved in two thousand grammes of alcohol (rather more than a quart). Twenty-five grammes of arsenious acid were dissolved in a quarter of a pint of hot water. Four grammes of the essence of cloves, fifteen grammes of the essence of lavender, and five grammes of the essence of neroli (orange-flowers), were dissolved in a quart of alcohol. The three solutions were mixed together at the time the injection was made. Three-fourths of the mixture were thrown in at the lower end of the left common carotid artery. The remainder was injected into the cavities of the pleuræ and peritoneum. The gas contained in the intestines was removed by means of punctures. (The body was afterwards wrapped up in linen bandages). It is important not to throw more than three pints of a liquid into the body of an adult, as otherwise the injection will exhale by the bronchia, and return freely through the mouth.

The following is the liquid which appears to me to be best adapted to preserve bodies:—Four pints of alcohol, one hundred grammes of creosote, one hundred grammes of the binioduret of mercury, and two hundred grammes of the ioduret of of potassium.—*Ibid.*

Extra Uterine Pregnancy.—Removal of the Child by the Cæsarean Operation. By M. M'Culloch, M. D., Lecturer on Midwifery, M'Gill College, Montreal.—Madame Reaume, aged 21, a native of St. Eustache, in this District, had, on a former occasion, a living child at the full term, and when she first consulted me, in May, 1828, was again pregnant, and had passed about fifteen months from the last catamenial period, and about ten months from the time of quickening, without having experienced any symptom of parturition, although the abdominal enlargement and other symptoms left no doubt of the existence of pregnancy. During the first nine months of that period, she frequently experienced severe pains in the right iliac region; but after the completion of the usual term of utero-gestation the motion of the child was no longer felt, and she thought her sufferings, in consequence, became much less severe. About the same time the milk began to flow from her breasts, and a lochial discharge appeared, and continued several days. Notwithstanding this remarkable change the abdomen did not decrease, and the fluctuation only of an immense quantity of fluid could be detected.

She remained nearly in the same condition until the following month of November, when I endeavoured, by tapping the abdomen, to alleviate her sufferings, and about thirty-six pints of liquid, of the colour and consistence of pale ink, were drawn off. The child could now, for the first time, be distinctly felt, under the integuments, and the position of its body and limbs easily traced. She experienced no inconvenience or bad consequences from the operation, although she had very imprudently ventured to walk a few hundred yards to the village Church on the following day. Diuretics, and occasionally a purgative, were for some time administered, and I had the satisfaction to find that she afterwards remained free from the slightest symptom of dropsy. She, nevertheless, continued to suffer daily from fever and debility until the month of June following, when putrid matter, mixed with quantities of hair from the child's head, began to ooze from her navel. The skin was inflamed a few inches round an opening that would admit the point of the finger, and nature was, in this way, evidently making a most interesting effort to expel the child, and save the life of the mother; but she had become so feeble and emaciated as scarcely to leave a chance of her surviving a few days, and I thought I was, under the circumstances, warranted in proposing the Cæsarean operation as her only hope. At the same time, her alarm was much increased by observing two worms escaping from the navel, and she, without hesitation, agreed to submit to whatever I thought would afford her a chance of recovery. Being then six miles distant from the nearest professional friend, I did not, under the circumstances, consider myself warranted in waiting for assistance; I therefore had her at once placed on a table, and made an incision in the linea alba extending five or six inches downwards from the navel, and in the third year of her pregnancy, removed a putrid child of the ordinary size at birth. She did not lose an ounce of blood, and bore the operation with great courage. No vestige of a placenta remained, and the child was found, in a sac that had formed adhesions all round to the walls of the abdomen, and appeared to be the fallopian tube enormously distended and thickened. It contained, besides the child, a quantity of very offensive matter. Nearly all the bones of the toes and fingers were found detached, and some of them adhering to the sides of the cavity were carefully removed; a small tent was then placed at the bottom of the incision to favor the escape of matter, and its edges were kept in contact with adhesive plaster, supported with a bandage. She afterwards continued to improve daily, although the thermometer, at the time of the operation and for several days after, was upwards of 90° in the shade. Her progress, notwithstanding, from a state of extreme prostration to perfect health was so rapid, that she was able, without inconvenience, to be taken six miles to church a month after the operation.

She has since enjoyed excellent health, and, without regret, remains childless.—*Brit. Am. Journ. of Med. and Phys. Science.*

M. Flourens on the Development of Bone.—The following three propositions embody the chief results of M. Flourens' recent investigations upon this most interesting subject of enquiry.

1. *Bone is formed by the periosteum.* 2. *It grows by the super-position of external layers.* 3. *The medullary canal is enlarged by the absorption of the internal layers of the bone.*

The experiments, on which the first of these propositions is based, were performed on dogs. A portion of one of the ribs was excised; removing only the bone, and leaving the periosteum behind. It was found that, after the expiry of a few days, a minute osseous nucleus was formed within the periosteum between the two divided ends of the rib. This nucleus became larger and larger, until at length it rejoined these ends, the one to the other, thus filling up the void space between them.

The numerous preparations, exhibited by M. Flourens at the Royal Academy, clearly show that the new bone is formed in the periosteum; that, when it is first formed, it is completely insulated and apart from the old bone; and that it is only by its gradual development and extension that it ultimately reaches the two divided ends of the old bone, thus re-uniting them together.

The *second* proposition—*bone grows in size by the super-position of external layers*—was established by numerous experiments on dogs and rabbits. One of the tibiæ was exposed, the periosteum divided, and a ring of platinum wire was then passed around between the bone and its investing membrane. The wound being then closed and left undisturbed, it was found after a certain period that the new bone, that had been formed, fairly invested with its recently-deposited layers the platinum wire. The *third* proposition was equally satisfactorily made out by the preparations that were exhibited.—*Med. Chirurg. Review from Compt. Rend.*

On the Deposition of Carbonaceous Matter in the Tissue of the Lungs.—1. There is continually forming and accumulating in the lungs of man, during adult life, and more especially in old age, a certain amount of carbon in a state of the most minute subdivision.

2. This carbon, that exists even in the very substance of the pulmonary tissues, does not come from without.

3. Wherever it exists in sufficient quantity to form deposites of one millimetre in extent, the air-tubes, the blood-vessels, and the pulmonary tissues become transformed into a dark-coloured substance, which may occupy even more than one-half of the entire lungs.

4. The respiration no longer goes on in those parts which serve as a *matrix* to the carbonaceous deposit; there also, the phenomena of the circulation do not take place in the state of disease, and the process of inflammation is consequently never developed.

5. The successive accumulation of this carbon beyond a certain term is apt to cause death in old age, by rendering the pulmonary tissue more or less impermeable to the air.

6. The constant presence of this substance in the lungs of old per-

sons is one cause of the fatality of pneumonia and congestive affections of the respiratory organs in them.

7. These molecules of carbon in the pulmonary parenchyma seem to have a marked influence on the phenomena, which may subsequently occur in and around tuberculous deposits. When tubercles are formed in the lungs, and the carbonaceous matter is deposited in considerable quantity around them, they do not undergo the successive changes proper to phthisis, in the usual course of this disease. The tubercles become calcareous, are deprived of their fatty matter, and do not enlarge. No vessels of new formation are developed around them; or rather, if such vessels have already become enlarged before the deposition of the molecular carbon, they become obliterated in consequence of this deposit, and the progress of the phthisical disease is arrested.

8. The production of carbonaceous matter in the lungs of man,—occurring, as it does, quite independently of any trade or profession, and (most probably) of any particular sort of food—is a fact which should be studied in a pathological as well as a physiological point of view, considering the influence which it may have on the course and issue of the most frequent pulmonic diseases to which old persons are liable. It would seem also that the deposition of this matter in the parenchyma of the lungs has a tendency to arrest the progress of phthisis, by forming a wall around the tubercles, and thus separating them from the intact pulmonary tissue.—*Ibid from Compt. Rend.*

Transactions of the College of Physicians of Philadelphia.

Stated Meeting, April 1st, 1845.—Dr. Pepper read the following account of a case of Peritonitis, *with perforation of the appendicula vermiformis*, caused, apparently, by the impaction in the latter of a grape seed.

Mrs. H——, aged 45, the mother of a numerous family, had enjoyed uninterrupted good health up to the latter part of January, 1845, when, for the first time, she complained of some lassitude, and occasional uneasy sensations in the right iliac region. From the 2d of February up to the 5th of the same month, her bowels had been constipated, and she accordingly took a dose of oleum ricini, followed by an enema of senna and sulph. magnesiæ—without, however, producing the desired effect. On Thursday, the 6th, about 3 A. M., she was *suddenly* seized with severe pain in the right iliac fossa, attended with great nausea and vomiting, prostration of strength, and collapsed countenance.

The patient was now for the first time confined to her bed, and treated by a charlatan, under whose care she continued up to February the 8th, without any important change in her symptoms.

Dr. E. Peace was now requested to visit the patient, and found her in the following condition:—pulse 130, and feeble; extremities warm; features collapsed; skin moist, but of a natural temperature;

total loss of appetite, but no vomiting; abdomen tympanitic. She complained of extreme pain about the umbilicus, and also of great tenderness in the right iliac fossa. An ounce of oleum ricini, combined with sulph. morph. gr. ss., was now administered, but could not be retained; and a similar dose was repeated several hours after. The patient was also placed in a warm bath. and saline enemata were freely used, without, however, evacuating her bowels, which had now been in a constipated condition for the last five days.

Whilst under the above treatment, the tympanitis and pain diminished, but the patient gradually became more feeble, and expired the following morning, February the 9th, at 5 o'clock.

Post-mortem examination the following day. Present, Drs. Peace and Garrison.—Abdominal muscles covered with a thick layer of adipous matter. On opening the peritoneum, there was an escape of fœtid gas, having a somewhat gangrenous odour; and the serous membrane throughout presented evident traces of recent inflammation. In the right iliac fossa, several convolutions of the small intestines were united to each other, as also to the caput-coli, by means of strong, false membranes; and, at this part, the peritoneum was bathed with pus. The appendicula vermiformis was greatly thickened, and adhered, throughout its whole extent, to the lower part of the ileum; near its free extremity, there was an ulcerated opening, about one-fourth of an inch in diameter.

The lower part of the ileum, in connection with the cœcum, was now removed for more minute inspection. On laying open the appendix, it was found to contain, at its perforated extremity, a small mass of indurated fæcal matter, in one end of which was imbedded a large grape-seed; its mucous membrane was black, and in a gangrenous condition—whilst the other coats were softened and greatly thickened. The ileum, as also the caput-coli, were apparently perfectly healthy. The pelvis contained several ounces of a thin brownish fluid, having a somewhat fæcal odour. Intestines distended with flatus; other viscera not examined.

From the previous history, it is highly probable that the grape-seed was the exciting cause of the inflammation, which ultimately led to ulceration and fatal perforation of the appendix. Such cases can no longer be considered as extremely rare, since numerous instances of a somewhat similar character are now to be found on record. In the Medical Examiner, vol. i. p. 655, is reported a case of fatal peritonitis from two perforations of the appendix, caused, most probably, by "a gritty, brown substance, about the size of a bean." In the same journal, vol. iii. p. 580, may be found a case of chronic inflammation of the appendix, which ultimately terminated in a fistulous opening through the abdominal parietes. In this case, the appendix was thickened and dilated, and the shell of a hazel-nut was impacted in its middle portion.

Dr. Morris read the following account of two cases of hæmoptysis, occurring in infants of three months.

In the month of January last, I was called to render medical aid to the child of Mr. Hastings, aged three months. It was a male, one of twins, of large size, and fine health up to the time of its attack. The mother, a woman of unusual intelligence and energy, reported the child to be labouring under an attack of colic, with diarrhœa of some days' standing. The discharges were frequent, green, and slimy. There was much heat of skin and thirst. The abdomen was flaccid, and the face anxious. The child cried much, and the sound was plaintive. The usual prescriptions in such cases were made: warm poultices to the bowels; small doses of calomel and castor oil. By these means, the condition of the child was improved, though the heat of skin and febrile disturbance still continued. About the third day of my attendance, the mother showed me her collar, which was smeared with blood, that, she assured me, had been discharged from the mouth of her infant. I at once ascribed it to some ulceration of her nipple, for which I searched carefully, but without being able to detect the slightest solution of continuity. The gums and throat of the child were next examined, and an ulcer was found near the isthmus faucium, to which, though small, the issue of blood was supposed to be owing. The following day she exhibited a handkerchief much stained with blood, of a pink hue, which had been discharged again by the child. Dr. Meigs was now requested to see the infant, and his suspicions were so strong that the blood was derived from the breast of the mother, and vomited by the child, that he could not be persuaded to the contrary till he had examined the nipple with a magnifier, and applied smart friction with a cambric handkerchief. The respiration of the child did not deviate from the natural state sufficiently to attract our attention, though we visited it often, and examined it anxiously; nor was there, at any time, the slightest cough. After lingering a few days—the diarrhœa varying in degree—it sank into coma, followed by convulsions and death. The autopsic examination, made by my friend, Dr. Sargent, Resident Physician to the Pennsylvania Hospital, was as follows:

Exterior aspect of body pale; hands and feet of a blueish hue; similar colour of all the dependent parts of the body and limbs; very slight, if any, emaciation. The mouth and nose contained a frothy, reddish-white fluid, which escaped freely from these cavities when placed in a dependent position.

Brain not examined—nor posterior part of mouth and fauces. Larynx perfectly healthy.

The mucous membrane of the trachea and of the bronchial tubes, as far as their fourth or fifth ramifications, was reddened, and, in the bronchial tubes, slightly thickened, but in both entirely free from false membrane, or viscid secretion of any kind. The inferior portion of both lungs soft and crepitant, but containing abundance of a colourless serous fluid.

The lower lobe of the left lung was of a vivid red colour; contained a very small quantity of air, and but little serum; consistence

of its tissue not materially diminished. The right lung was of the same bright red colour in its middle and lower lobes; the consistence of both these lobes was diminished, particularly of the middle; and the greater portion of this lobe sank when placed in water of medium temperature. There was no appearance of pus, nor of lobular discolouration or induration. No adhesion between the opposed pleural surfaces of either side; nor any effusion of lymph or serum in either pleural cavity. Both lungs were expanded. No tubercles in the lungs, or in the bronchial tubes.

The heart was of a healthy appearance; foramen ovale open.

The abdominal viscera were all carefully examined, but no lesion of any kind could I detect.

Within a week after, the surviving child was taken with symptoms precisely similar. Guided by the light derived from the examination of the preceding case, our attention was now turned to the chest. With great difficulty, owing to the extreme restlessness of the infant, we were enabled to detect dulness, upon percussion, of the posterior part of the lower lobe of the right lung, with slight mucous rattle. The quantity of blood discharged, though less than that in the preceding case, was considerable; and in this instance I saw it in the mouth of the child, frothy, and mixed with mucus. Small cups were applied to the back of the child, and two ounces of blood taken. Calomel, in minute doses, was given to act upon the diseased secretions of the liver; and, in a day or two, our patient was convalescent.

The only notice of this symptom I have met with, is in the work of Rilliet and Barthez, who speak of their experience as confirmatory of that of Dr. Gerhard, who says he has never observed, in the pneumonia of infants, the bloody sputa attendant upon the disease when it occurs in the adult. They refer to the testimony of Valliex, who reports having met with a discharge of bloody mucus in the pneumonia of infants; a circumstance, however, of which they are evidently disposed to question the truth.

Dr. Ashmead related the case of a patient under his care, to whom an ordinary dose of calomel was given as a purgative, and followed by a dose of magnesia—who, soon after taking the calomel, was seized with symptoms similar to those resulting from poisoning with corrosive sublimate. He was treated by the usual antidotes and remedies indicated in such cases, and recovered. There was no reason to suspect that the calomel given in this case was an impure article, or that there was any idiosyncrasy of constitution, as the patient had previously taken calomel without any unpleasant symptoms following.

Dr. Morris presented the following account of a *case of death from extensive disease of the stomach*, unattended during the life time of the patient, with any symptoms indicative of its existence.

The case is related by Dr. J. M. Paul, who was the physician in attendance.

B. G., aged 59 years, a gentleman of a nervo-sanguineous temperament; active, industrious, and temperate in his habits; had enjoyed perfect and uninterrupted health, with the exception of slight and occasional attacks of diarrhœa, for the last year of his life.

On the evening of Wednesday, the 19th of March last, he returned home from his place of business, much fatigued in body and in mind; complaining of weariness and aching of the limbs, chilliness, sore throat, headach, and some febrile excitement. His wife persuaded him to bathe his feet in hot water, with the addition of mustard, and to take some magnesia and Epsom salts, which he did, and retired to bed. During the night, he experienced great restlessness, pain in the head, nausea, and some vomiting of bilious fluid, with a sensation of distress at the epigastrium; but these symptoms were partially relieved by the operation of the purgative medicines he had taken, and towards morning he felt himself better, and slept.

I first visited him about 11 o'clock on the Thursday morning ensuing, and found him labouring under a slight fever, some headach, oppression at the stomach—with an obscure tenderness on pressure. The epigastrium yielded, on percussion, a tympanitic sound; the tongue was coated and white; the pulse was moderately full, but regular. He was directed to keep perfectly quiet; to take, occasionally, a mixture of the citrate of potash with sp. nitri dulcis; to apply a sinapism over the epigastrium, followed by a mush poultice; and to use ice, and mucilaginous drinks. In the evening he took six grains of the blue mass, and repeated the warm foot bath.

On Friday, the 21st, he felt so well, as to be able to return to his place of business, and there he continued until late in the evening, attending to his affairs. In the evening, he returned home much fatigued—complaining of chilliness, headach, &c. Bathed his feet in hot water and mustard, took a cup of weak tea, and retired to his bed. His wife gave him, in the night, some magnesia, which operated well, but he had a restless night; some wandering, headach, and a sense of weight or obstruction at the pit of the stomach; flatulence, and occasional nausea, but no vomiting.

On the morning of the 22d, I found him feverish, with a pulse full and active; tongue coated with a thin white covering; and complaining of pain in the head: his bowels had been freely moved. I took away xvj. oz. of blood, which relieved his head; it was buffy and slightly cupped; reapplied the mustard over the stomach, followed by poultices of mush, and directed him a mixture of the bicarbonate of potash, with a little camphor water, to relieve his flatulence. Ice to be taken freely; cold applications to the head; mucilaginous drinks, &c.

These remedies gave him comfort, and in the evening he was better, and expressed himself much relieved.

At night he took six grains of the blue pill, and repeated the foot bath; continued the ice, poultices, and mucilaginous drinks.

On Sunday, the 23d, he continued much the same; his symptoms were, however, milder. The same treatment was continued.

On Monday morning, the 24th, he appeared convalescent; expressed himself as decidedly better; the fever had subsided; pulse good and regular; head relieved; stomach more comfortable, though still exhibiting some tenderness on pressure. There was considerable muscular prostration, but the general aspect of the patient was good and favourable. There was nothing present to indicate danger; the patient, indeed, thought himself almost well. During my visit, I carefully examined the epigastric and abdominal regions, and finding that pressure still gave him pain, by way of precaution, I proposed that some twenty leeches should be applied over the painful part, to be succeeded by a large poultice of corn meal; to this he acceded. The leeches were applied, but took a long time in taking hold; this caused the patient great fatigue, from the confined position to which he was necessarily subjected. A small quantity of blood was drawn by the leeches; after they fell off, he sank into a sleep, which lasted for half an hour: when he suddenly awoke; jumped out of bed to go to the chair, as had been his custom; reached the middle of his chamber; became faint, and was near falling, when he was assisted to bed with difficulty.

I saw him half an hour after this occurrence; found him utterly prostrated; breathing rapidly, and with a pulse of 150 to 160 a minute. I immediately gave him freely of brandy, aromatic spirits of ammonia, and hot nourishment; hot bricks were applied to the feet, with sinapisms, &c.; but without much, if any, effect. Pulse continued rapid and feeble; prostration extreme.

At my request, Dr. Caspar Morris was called in consultation. He considered the patient as alarmingly ill; approved of the stimulants, and suggested the application of a blister over the epigastrium, cold to the head, and ice to be taken internally, and wine whey to be substituted for the brandy. This was at 2 o'clock, P. M. I continued with him, and Dr. Morris saw him again in a few hours. The indications of sinking continued, and the case was evidently hopeless. The mind of the patient was collected and clear; had no idea of his danger, and could not feel that he was ill. He died about 6½ o'clock, apparently in a gentle sleep.

Autopsy. Present, Drs. Paul, C. Morris, and J. Neill.—The external appearances of the body generally, were natural; some lividity existed about the extremities. The abdomen was opened through the linea alba: the adipose tissue was one inch in thickness. On displaying the viscera in their natural position, there was exhibited a slight adhesion of the omentum majus to the parietes, at the epigastric region. Large patches of coagulated lymph were found upon the great omentum, which extended to the left hypochondriac region, completely covering the anterior face of the stomach, and a portion of the spleen. The superior face of the liver was also found

to be coated by a lamina of coagulated lymph, which could be removed in masses. The peritoneum of the parietes of the abdomen exhibited a venous injection, and the cavity contained a pint or more of serum.

The stomach was removed, and found to be exceedingly heavy, weighing, probably, one and a half pounds; it contained a thick fluid of a light brown colour. Its walls were about half an inch in thickness—the increase being principally in the cellular and mucous coats. The cellular coat, near the cardia, was filled with coagulated lymph, which became less firm near the middle; at the pylorus, the cellular coat was distended to the same thickness with serum. The mucous coat exhibited great changes in structure and appearance—being much thickened, and very firm; its hue was florid—the colour being deeper at the greater curvature. Its surface presented a very rough, granular formation, each projection being about the size of a grain of coffee, or larger. These were dense and unyielding to the touch, and more vascular than the surrounding tissue; they were more numerous at the greater curvature.

The liver presented no unusual appearance in its glandular structure.

A section of the upper part of the jejunum, and a section of the ileum, were examined; but presented no appearance of disease in any of their coats, except the injected peritoneum.

The examination was interesting in many respects. It proved that, with such altered structures, the case was beyond the reach of medicine. It presented traces of great inflammation, with little accompanying pain. It presented abnormal structures, which must have taken time to form, during, apparently, the enjoyment of good health. It shows that extensive disorganizations may take place in some tissues, without the occurrence of any symptoms by which their existence is revealed to either the patient or his physician.

On the Dressing of Wounds by Occlusion.—For nearly three years, says M. Chassaignac, I have employed a mode of dressing wounds which I designate by the name of *dressing by occlusion.* In the case of a recent wound, I construct on the injured part a cuirass with adhesive plaster, divided into strips, which cover each other by imbrication. This covering is enclosed by a piece of linen spread with cerate, and pierced full of holes, then covered by lint kept in place by compresses and bandages. This dressing should remain for eight or ten days. If the suppuration be sufficiently free to require it, the external parts of the dressing, as far as the piece of linen spread with cerate inclusively, may be renewed, but the cuirass of adhesive plaster must not be interfered with.—*London Medical Times.*